Honeywell

IP Security Management Platform

HUS-SWP-32S

User Manual

Contents Table

1 About This Document

This manual introduces the function and operation of the HUS-SWP-32S that is installed on the server-end, allowing for seamless integration of the software into the user's system.

This manual supports HUS-SWP-32S 4.3.0 version.

Special Font and Symbols

Italic	Indicates references including figure number, page number, etc. In the electronic version, click it to go to the corresponding page.
Bold	Indicates it is a button, tab or menu item.
	Alert the user to the presence of important operating and maintenance (servicing) instruction in the literature accompanying the product.

How to Use This Document

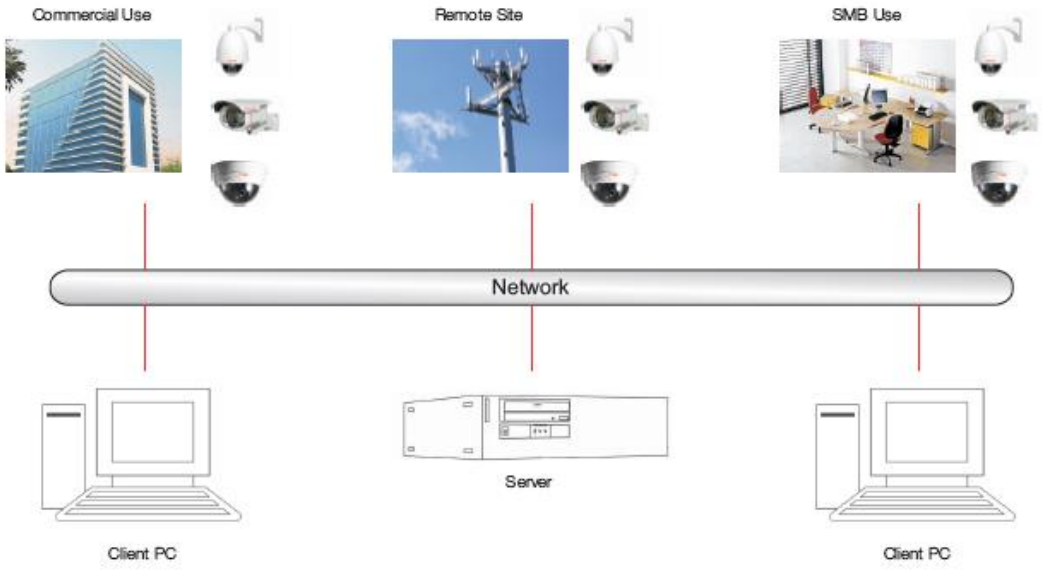
- Pictures in the manual are for reference only, please see the actual items for details.
- The products will be updated without prior notice.
- Please familiarize yourself with this manual before operation and ensure its accessibility for future use.
- The manual has been reviewed and the accuracy is guaranteed. If there is any uncertainty or controversy, Honeywell reverses the final interpretation. Honeywell does not take any responsibility for any consequences caused by misunderstanding of the manual or improper operations.

2 Introduction

HUS-SWP-32S IP Video Solution Overview

The core components of HUS-SWP-32S IP Video Solution are HUS-SWP-32S server and HUS-Client, which can implement an effective and reliable IP video surveillance system with front-end security devices.

Figure 2-1 HUS-SWP-32S Architecture



HUS-SWP-32S Server(HUS-SWP-32S) – HUS-SWP-32S provides date management, video storage trigger, and event and control , also provides streaming service, records, stores and playback videos applicable to various types of video, intrusion and applicable to various types of video devices (video encoder, decoder, IP camera, alarm panels….).

HUS-Client – Client of HUS XACT IP Video Solution supports live video display, playback from HUS-SWP-32S, maps, alarms management and PTZ of IP front ends.

This user guide introduces the configuration and operation of HUS-SWP-32S .For instructions of HUS Client; please refer to *HUS-SWP-32S Client User Manual*.

HUS-SWP-32S Overview

The HUS-SWP-32S service mainly includes these modules: NVR Service, Event Control Service, Video Trigger Service, and Rules Engine Service.

- HUS-SWP-32S Server – HUS-SWP-32S IP Video Solution adopts centralization management architecture that all configuration data of HUS-SWP-32S IP Video Solution are stored in HUS-SWP-32S Server. All other service of HUS-SWP-32S and client get configuration data from the Server other than store shared information everywhere. HUS-SWP-32S Server provides functions such as the site map, user management, device configuration, storage settings, information queries... It also provides a two-way user management mode, one-stop interface management, and completes authority management.

- Two-way user management mode: Allows the administrator to manage devices through role definition and manage user authority allocation through role assignment.
- One platform management: Provides the user interface with unified style and configures the management functions and parameters (such as site map, user department, and role distribution) in one platform.
- Multi-level authority management: Allows different users to access the system according to their administration scopes and authorities after they log onto the system. The system performs strict identity authentication to users and prohibits any illegal system incursion or operations exceeding a user's authority.

- Event Control Service – receives information about alarm, event, and state changes, sends operation command and control information to front-end devices, is compatible with different communication methods and formats, and caches the information locally. E&C service plays an important role of centralization control management and alarm information management. HUS Client performs front-end device control by arbitrage of E&C service.
- Video Trigger Service– provides the video trigger service for digital video monitoring system and manages video recording functions of multiple Streaming Services to ensure the reliability and stability of massive and long-time video storage system.
- Database Management Tool – maintains the database in HUS-SWP-32S Server, provides the functions of database backup, recovery, stale-data clearance…. Implementing database optimization and advanced management.

3 Installation and Connection

For the installation and connection of HUS-SWP-32S, refer to the instructions of Document HUS-SWP-32S Installation Guide provided in the package.

4 Service Configurations and Initialization

This chapter describes the configuration of service components. The HUS-SWP-32S monitors and manages the running status of service components with the Management Tool.

Each service in HUS-SWP-32S, should be configured in the Server should be assigned specifically in local Management Tool.

The system supports the communication between HUS-SWP-32S Server and service components. Different service components must be added into the corresponding HUS-SWP-32S Server in order to become a sub-device of HUS-SWP-32S Server. Thus, the Management Tool can start the service components and the real-time communication and monitoring services of HUS-SWP-32S Server.

There is a shortcut to the Management Tool on the desktop. Double-click this shortcut to start the system.

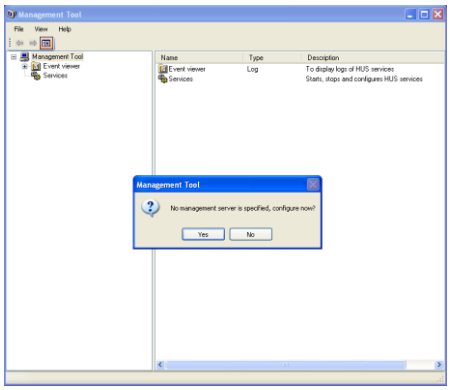
Figure 4-1 the Shortcut of Management Tool

- Because of the configuration order of the service components, user must configure them according to the steps from this document; or abnormal operation of the service components may result.
- The Management Tool displays different component-configuration interfaces according to which component user have installed. In the following related interface pictures, all the service components are installed on HUS-SWP-32S.

Configuring HUS-SWP-32S Server

When launch the Management Tool for the first time, it prompts for the IP address of HUS-SWP-32S that must be synchronized on the client. All the service components installed on HUS-SWP-32S must be configured with synchronized the Server.

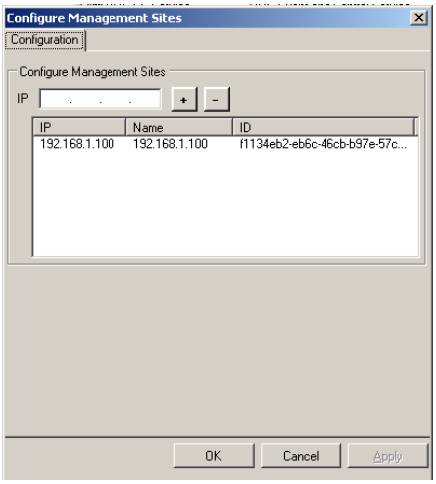
Figure 4-2 Management Tool Configuration



- To connect the service components to the HUS-SWP-32S Server, you must first configure the IP address of HUS-SWP-32S Server with the Management Tool.
- If user wants to change the default IP address 192.168.1.100, or modify Server name, please refer to the chapter in document “HUS XACT032S User Manual”.

- If the Management Tool does not prompt you to configure the server site of HUS-SWP-32S Server, or you need to configure new site for HUS-SWP-32S Server, select **File→Configure Management Sites**, and the same confirmation dialog box pops up.

Figure 4-3 Configuring Management Sites

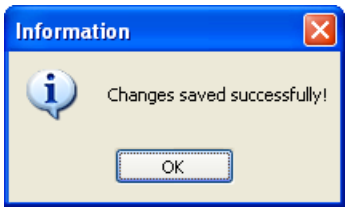


Select **Configure Management Sites** on the **File** menu to open the configuration page. In the "Configure Management Sites" pane, fill in the IP address of the HUS-SWP-32S server that must be synchronized. After inputting the IP address, click  , the system will search the existing HUS-SWP-32S Server according to the inputted IP address. If HUS-SWP-32S Server runs normally on the computer with the corresponding inputted IP address, the system then shows the information of the HUS-SWP-32S Server in the following list box. Click  . You can delete the Server selected in the following list box.

Click **Apply** after finishing configuration to make the settings effective.

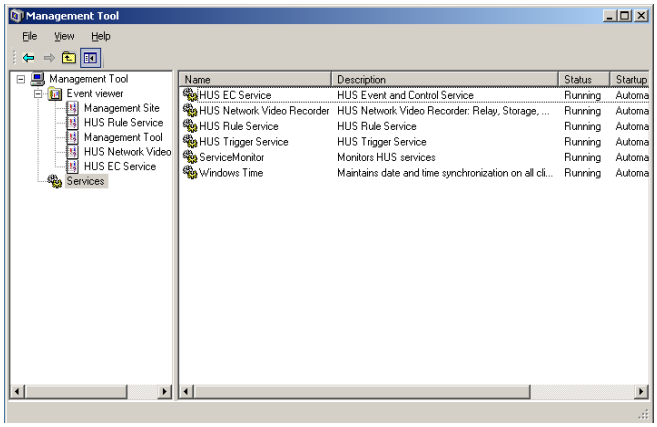
Click **OK** or **Apply** to save the settings, and wait until the system prompts successful completion.

Figure 4-4 Saving Management Site Information Successfully



User can set HUS-SWP-32S Server on the client of the same computer, but the client on the same computer can only synchronize with the Server.

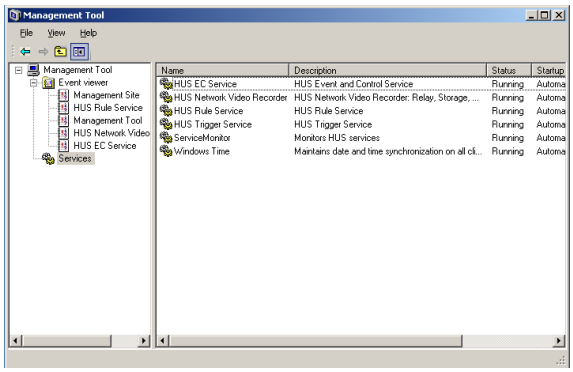
Figure 4-5 Management Site – Synchronization



Configuring Services

After user configured HUS-SWP-32S Server, open the main window of “Management Tool”, as shown in the following screenshot.

Figure 4-6 the Main Window of “Management Tool”

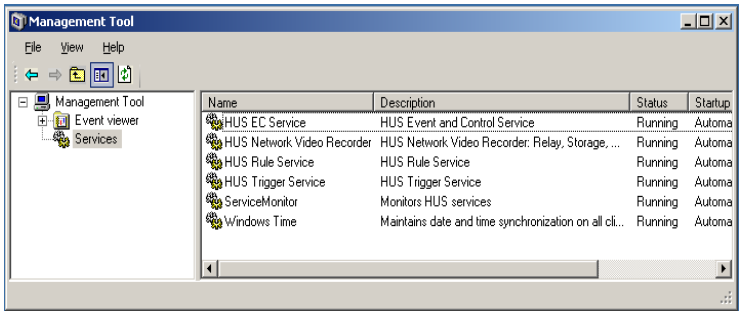


In the preceding figure, the services in the list differ according to the installed service components on computer. User can configure the services only if they have added the corresponding device of the service component in HUS-SWP-32S Server.

Event Control Service

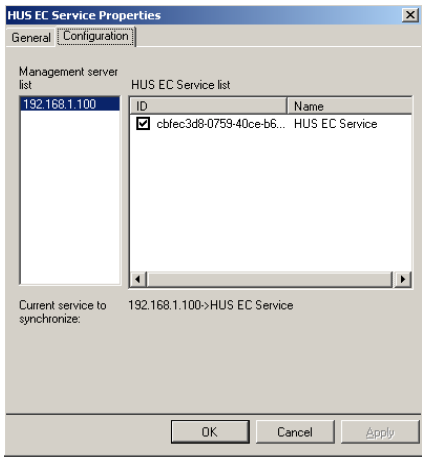
Expand the tree items **Management Tool→Services**, and double-click “HUS EC Service” under the “Services” group.

Figure 4-7 Management Tool – Service



Click the “Configuration” tab in the open “HUS EC Service Properties” dialog box.

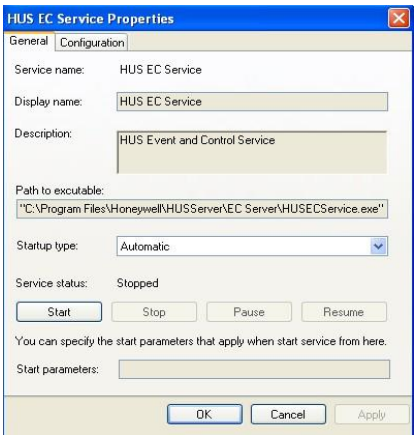
Figure 4-8 HUS EC Service Properties – Configuration



Select HUS-SWP-32S Server that user want to synchronize, and select the corresponding EC Service from names in “EC Server List”, so as to connect the EC Service equipment with the central server deployed by HUS-SWP-32S Server.

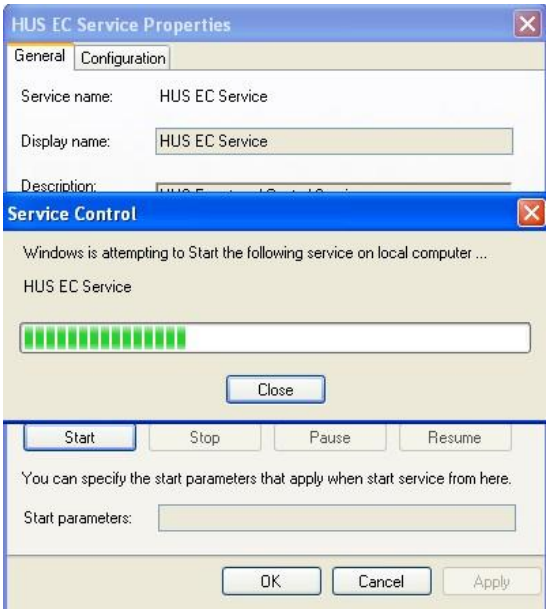
Click the “General” tab again, and start the EC Service.

Figure 4-9 HUS EC Service Properties – General



On the “General” page, click **Start**. When the service status turns to “Started”, the EC Service has started successfully.

Figure 4-10 HUS EC Service Properties – General – Starting the Service



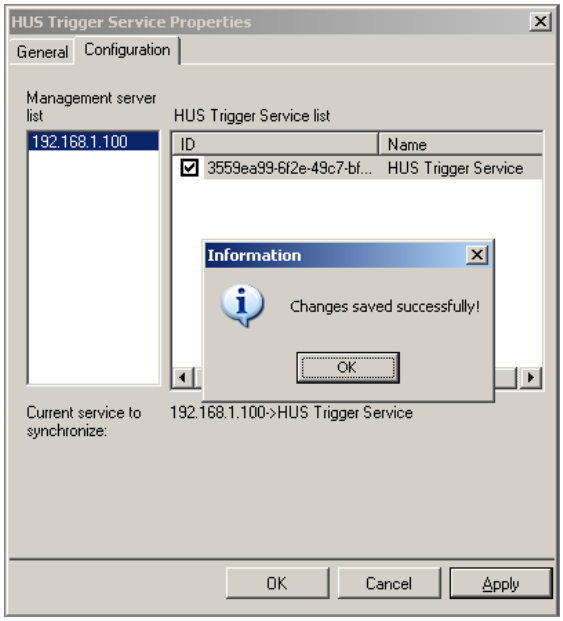
HUS Trigger Service

Expand the tree items **Management Tool→Services,** and double-click “HUS Trigger Service”. Click the “Configuration” tab in the open “HUS Trigger Service Properties” dialog box.

Select HUS-SWP-32S Server that you want to synchronize, and select the corresponding HUS Trigger Service names in “HUS Trigger Server List”, and then connect to the center server devices deployed by HUS-SWP-32S Server.

Click the “General” tab again, and start the HUS Trigger Service.

Figure 4-11 HUS Trigger Service Properties



On the “General” page, click **Start**. When the server status turns to “Started”, the Video Server is started successfully.

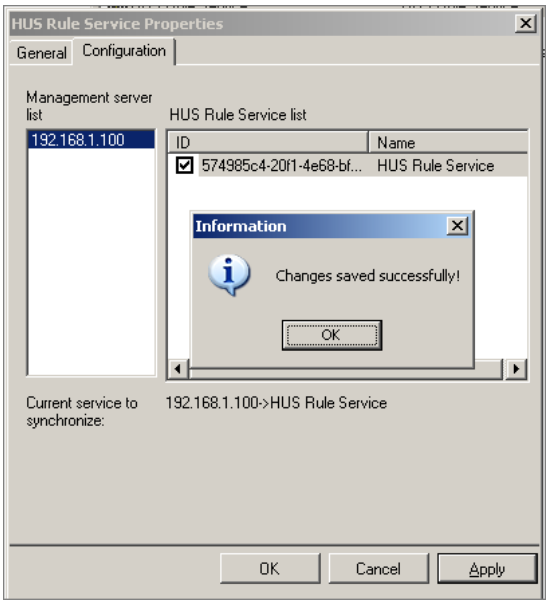
Rules Engine Service

Expand the tree items **Management Tool→Services,** and double-click “HUS Rule Service”. Click the “Configuration” tab in the open “HUS Rule Service Properties” window.

Select HUS-SWP-32S server that user want to synchronize, and select the corresponding Rules Engine Service names in the “Rule Service” list, so as to connect the Rules Service with the center server devices deployed by HUS-SWP-32S Server.

Click the “General” tab again, and start the Rules Engine Service.

Figure 4-12 HUS Rule Service Properties



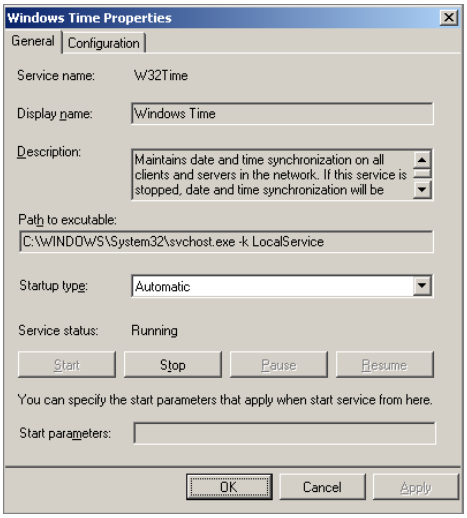
On the “General” page, click **Start**. When the server status turns to “Started”, the Rules Engine Service is started successfully.

Time Synchronization Service

Time Synchronization service allows time synchronization between the server and client. Windows Time service automatically synchronizes the system time with the network time to ensure the time on multiple system devices is consistent. Windows Time service can serve as the time client that synchronizes with other timeservers (time synchronization source), and can serve as the time synchronization source with which Windows Time services on other computers synchronize.

Double-click “Windows Time” under **Management Tool→Services**, and then the “Windows Time Properties” dialog box opens and the “General” page is displayed.

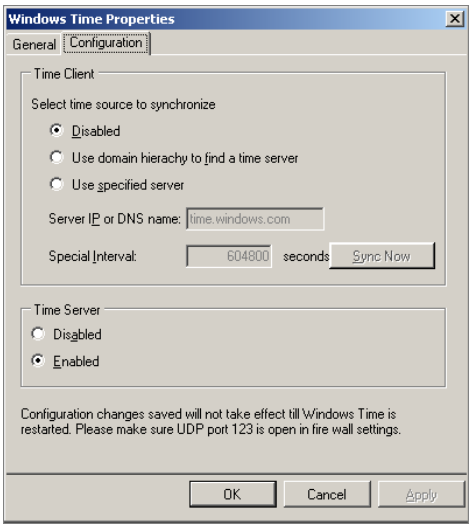
Figure 4-13 Windows Time Properties – Configuration



On the “General” page, click **Start**. When the service status turns to “Started”, the service is started successfully.

Click the “Configure” tab to configure the Windows Time service as the time client or time server.

Figure 4-14 Windows Time Properties – Configuration



Time client: Configure the Windows Time service to synchronize time with other timeservers.

1. **Disabled**: Disable the local computer to synchronize time with other time servers. For the server ,it must be selected
2. Use domain hierarchy to find a time server: Synchronize time with a designated time server in domain.
3. Use specified server: Input the time server IP or server name.
4. Interval of time synchronization: Specify the interval (second) for automatic synchronization with time server.

Time server: Configure the Windows Time service as a time server.

1. **Disable**: Disable the Windows Time service on the local computer to serve as a time server.
2. **Enable**: Enable the Windows Time service on the local computer as a time server.

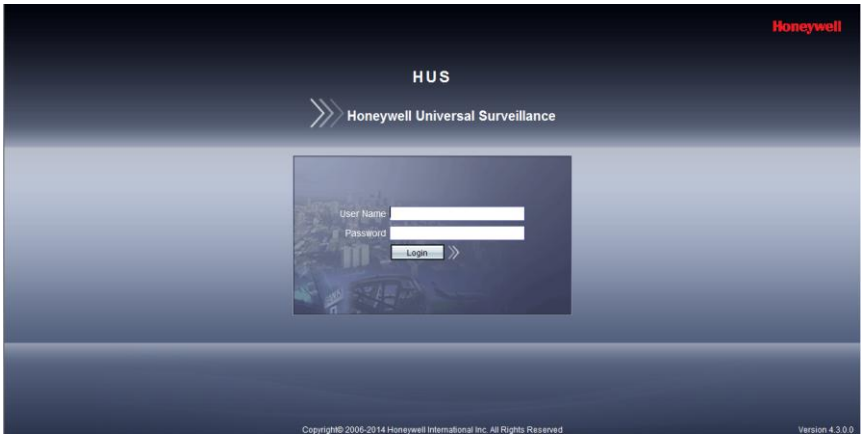
Note: for the server, it can't be set both Time server and Time client.

5 HUS-SWP-32S Server

User can login the HUS-SWP-32S Server with Internet Explorer to perform operations and configurations, manage sites, users and devices, make video recording rules, and search the records of alarm events, videos, and device operations without installing the client.

Enter the site address of the HUS-SWP-32S Server in Internet Explorer in the format of http://<the server IP address>/HUSsite (for default setting: http://192.168.1.100/HUSsite), and go to the login page, which is shown in the following figure.

Figure 5-1 Server Login Page

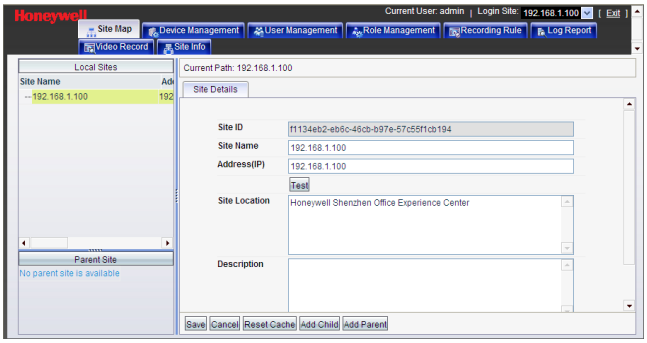


Enter the login name and password (the initial name and password are both “admin”), and click **Login** to access HUS-SWP-32S Server.

Please set the server IP address in **Control Panel→Network Connections** before logging HUS-SWP-32S Server.

Internet Explorer 8.0 compatible mode is recommended. The lowest resolution is 1280 x 800.

Figure 5-2 Login HUS-SWP-32S Server



HUS-SWP-32S Server contains the following eight tabs “Site Map”, “Device Management”, “User Management”, “Role Management”, “Recording Rule”, “Log Report”, “Video Record”, and “Site Info”. This chapter describes the settings and operations on each tab page one by one.

- In Windows server system, user must modify IE security settings to see the whole configuration page of HUS-SWP-32S Server. Select **Internet Options→Security→Trusted Sites** on the **Tools** menu, select **Sites**, and add the address of the HUS-SWP-32S Server page to the trusted web sites list.
- If user wants to change the server default IP address, please refer to the

related chapter in this document

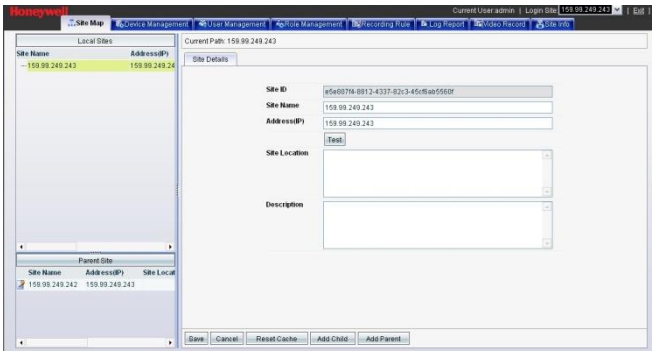
- After login, the system automatically logs out if users do not make any operations in a certain period. If users make operations on the page again, the page returns to the login page.

Site Map

"Site Map" is used to create the tree of the local site. "Site Map" is divided into two parts, among which the left part contains the "Local Sites" and "Parent Sites" list, and the right part displays the detailed information of the currently selected site.

The following screenshot displays the site structure of a site, which contains only one site.

Figure 5-3 Site Structure



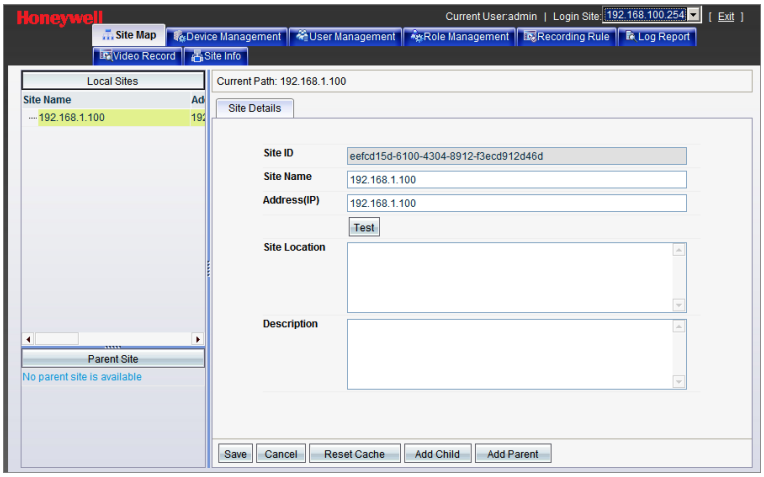
There are 5 device parameters for "Site Details", which are described in the following list:

1. **Site ID:** The unique ID for each site, which is automatically generated by the system.
2. **Site Name:** the name of the site
3. **Site IP:** The IP address of the site, through which users can access the system.
4. **Site Location:** the physical address of the site
5. **Description:** the additional information of the site

Modifying Sites

In the "Local Sites" list, click the name of the local site, and then the right "Site Details" tab displays the name, installation address and description of the site.

Figure 5-4 Modifying the Site Information



Fill in the information of the new site and click **Save**.

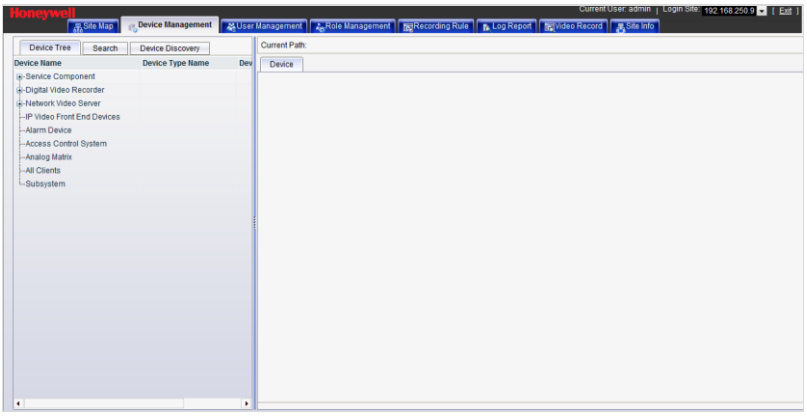
The IP address of the current site is HUS-SWP-32S server's IP address.

Device Management

"Device Management" is for the group management of specific devices according to its geographic distribution or organization structure.

Click "Device Management" to show the following figure:

Figure 5-5 Device Structure



Device Navigation

The "Device Tree" displays the organization structure of all devices in system, and these devices are classified by their types; and you can search the devices in the "Search" tab; "Device Discovery" is used for searching, batch processing and batch adding devices to the system.

Adding a Device

Device Discovery

"Device Discovery" is used for searching devices in the LAN, batch processing and batch adding devices to the system.

Select "Device Discovery" in "Device Management" tab, and the following window is displayed:

Figure 5-6 Discovery Condition

Select the device type and the service which you want to search in, and click **OK**.

The device types of the current version are:

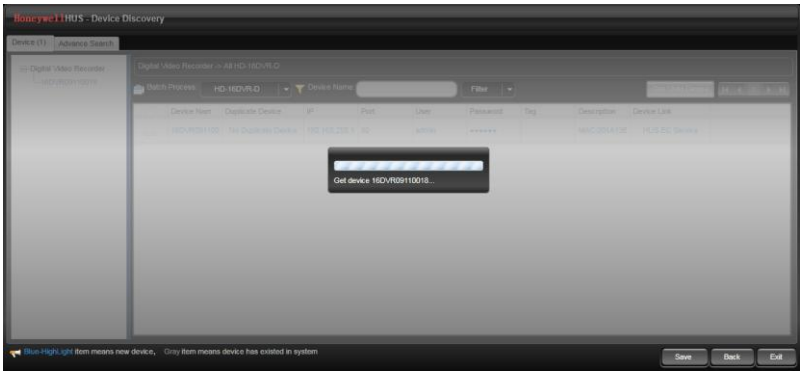
- Honeywell HD-16DVR-D, Honeywell HVR-9000, Honeywell HD-16DVR-D-V1.0.0
- Axis IP Camera, HD 1080P IP Camera, HD 720P IP Camera, HD D1 IP Camera, Honeywell 3M IP Camera, Honeywell ONVIF 720P IP Camera, HUS NVR(HUS-NVR-1032), Pioneer ONVIF 3M IP Camera, VENTI 720P Series IP Camera, VENTI D1 Series IP Camera, Honeywell 4-Channel Streamer HUSS-E4V
- ONVIF Generic Profile S, Honeywell HDZ Series IP Camera (ONVIF), Honeywell Pioneer Series IP Camera (ONVIF), Honeywell Pancake IP Camera(ONVIF), Honeywell Super HD Series IP Camera(ONVIF)
- Honeywell Integrated System (Prowatch-HSDK)
- Honeywell Access Control System (WPPCS)
- Honeywell Access WIN-PAK (SEPE)

The following sections introduce the device discovery function according to the device types:

Honeywell HD-16DVR-D (With the case of HD-16DVR-D)

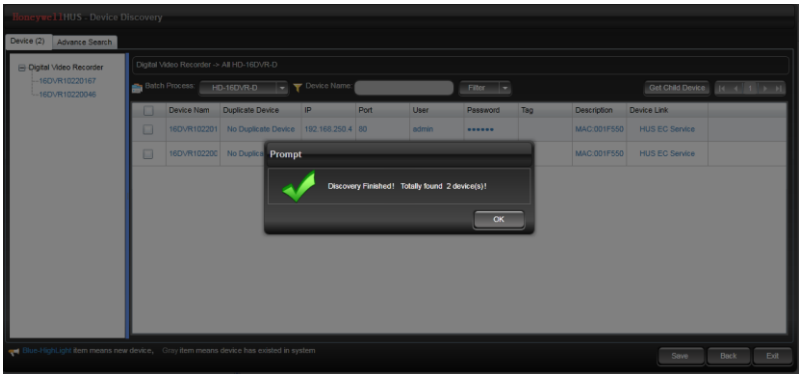
Select Honeywell HD-16DVR-D in *Figure 5-6*, and click **OK**. The following window is displayed:

Figure 5-7 Start Searching HD-16DVR-D



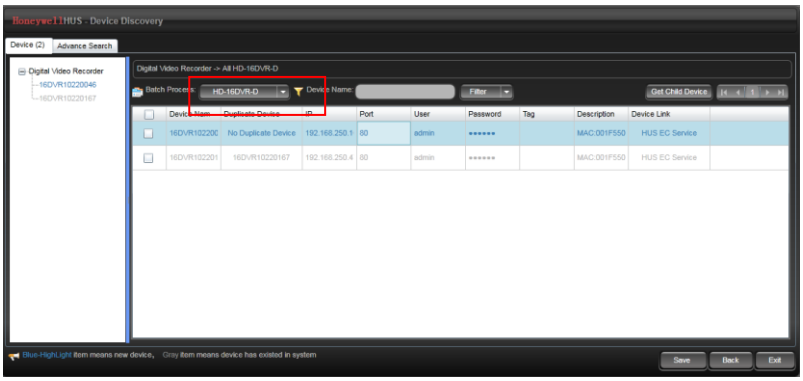
The following prompt is displayed after finishing discovery:

Figure 5-8 Discovery Finished Prompt



Click **OK**, and the following window is displayed:

Figure 5-9 HUS-Device Discovery



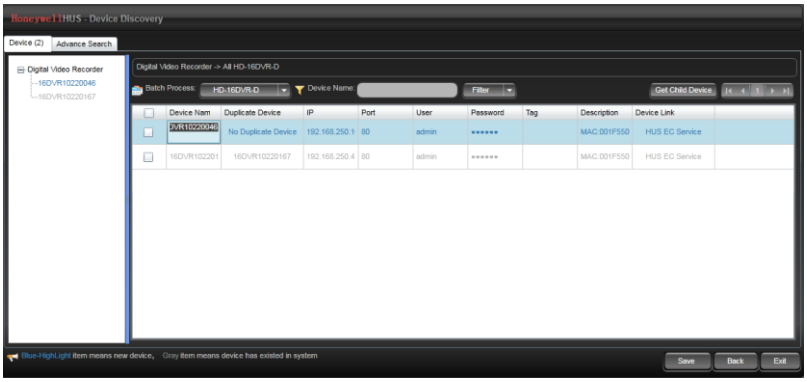
Device Discovery Main Interface Overview

Search results are listed in the left pane in *Figure 5-9* HUS-Device Discovery. Click device name listed in the device tree, and the details of the device is displayed in the right pane for the further operations. Blue-Highlight item means new device; Gray item means the device has existed in the system.

- The system distinguishes devices by IP addresses. The existed devices will be listed.
- The “Device Link” is configured automatically by the system.

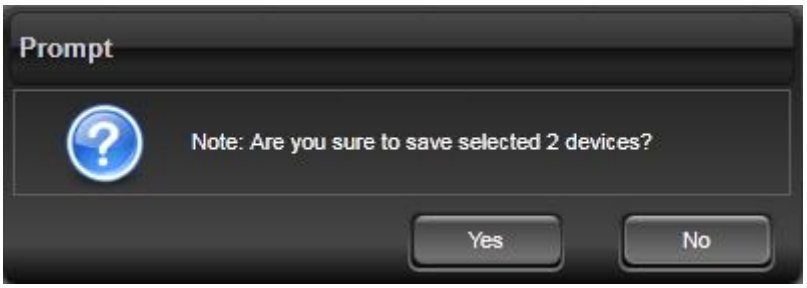
Click the details of devices to modify them as below:

Figure 5-10 Modify Device Details



Select the target devices and click **Save** to add the devices into the system; or click **Back** to select discovery condition again. Click **Exit** to return to “Device Management”.

- The following Prompt is displayed after clicking **Save**:



Click **Yes** to save the settings.

- If you select existed devices in the system and click **Save**, the following Warning is displayed:

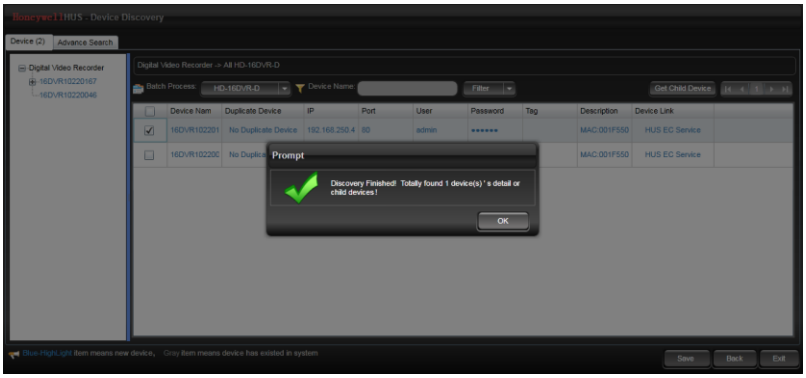
Click **Yes** to replace old devices.

Get Child Device

There are two methods to get child devices:

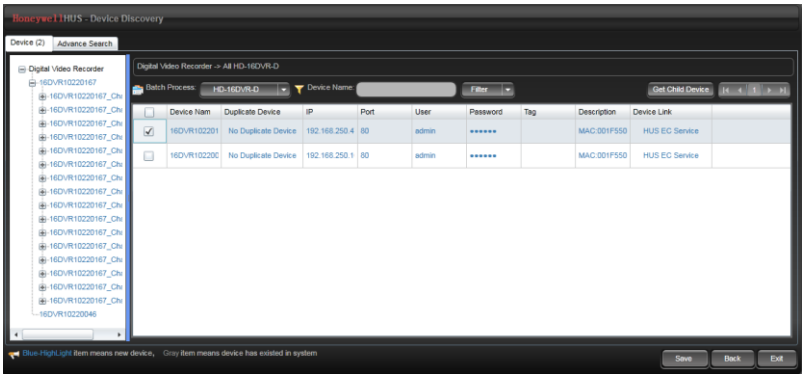
Method 1: Select the target device in the Device Discovery main interface and click **Get Child Device** (*Figure 5-9* HUS-Device Discovery. The following Prompt is displayed:

Figure 5-11 Discovery Finished Prompt



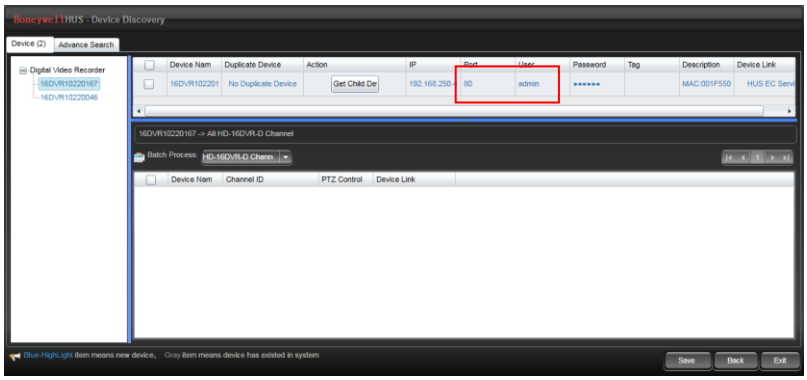
Click **OK**. Child devices will be listed in the device in the left pane tree as below:

Figure 5-12 Getting child devices finished



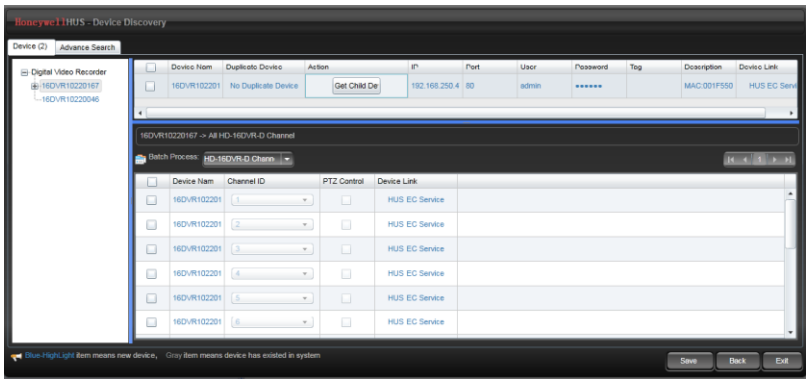
Method 2: Click the device name in the device tree in the left pane and the following interface is displayed:

Figure 5-13 Get Child Device (Method 2)



Click **Get Child Device** (*Figure 5-13*) to get the child devices of the selected device. Child devices are listed in the list below and in the device tree in the left pane:

Figure 5-14 Child Device List



The following warning may be displayed after clicking **Get Child Device**:

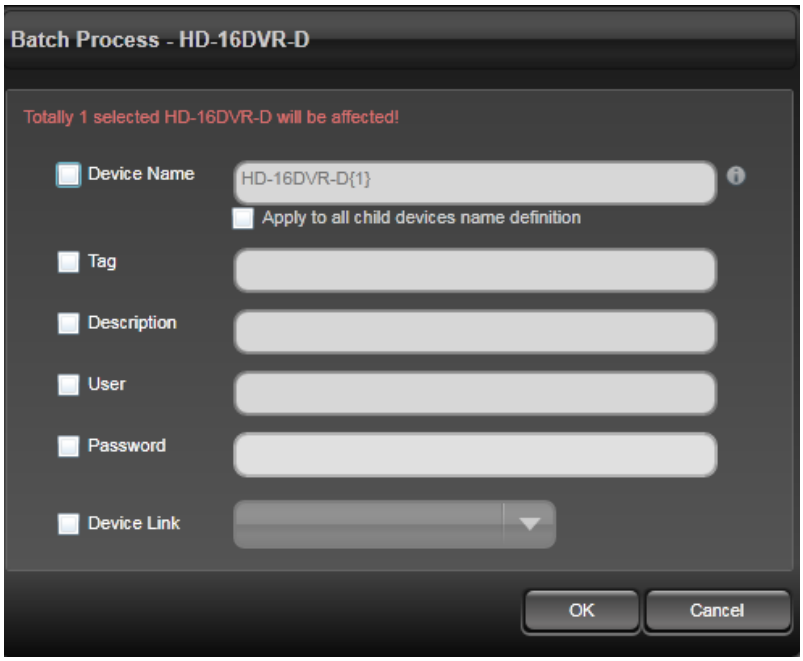
Click **OK** and look up the possible reasons. Repeat steps to try again.

Batch Process

- HD-16DVR-D Batch Process

Select target devises in the Device Discovery main page. Right click and select “Batch Process” or click **HD-16DVR-D**, the following window is displayed:

Figure 5-15 Batch Process-HD-16DVR-D



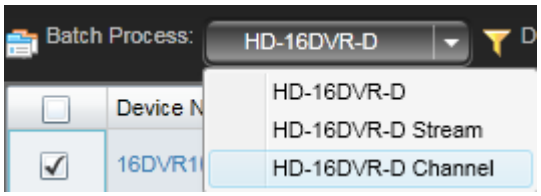
Select the checkboxes before the parameters to be batch processed and set the parameters. Click **OK** to save the settings or click **Cancel** to exit.

- HD-16DVR-D Channel Batch Process

There are two methods to batch process HD-16DVR-D Channel:

Method 1: Select HD-16DVR-D Channel in the drop-down list as below:

Figure 5-16 Batch Process-Select HD-16DVR-D Channel



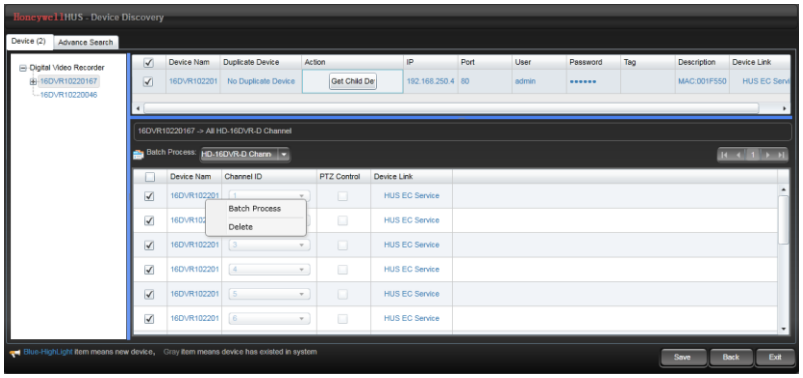
The following window is displayed:

Figure 5-17 Batch Process-HD-16DVR-D Channel

Select the checkboxes before the parameters to be batch processed and set the parameters. Click **OK** save the settings or click **Cancel** to exit.

Method 2: Click the device to be batch processed in the device tree in the left pane, and the following interface is displayed:

Figure 5-18 Batch Process-Select HD-16DVR-D Channel



Select the channels to be batch processed. Right click and select “Batch Process” or click **HD-16DVR-D Channel**. The following window is displayed:

Figure 5-19 Batch Process-HD-16DVR-D Channel

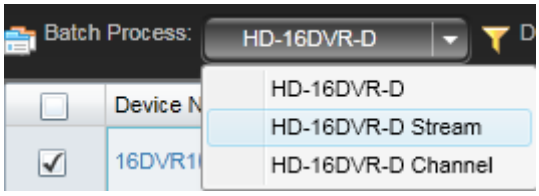
Select the checkboxes before the parameters to be batch processed and set the parameters. Click **OK** to save the settings or click **Cancel** to exit.

- HD-16DVR-D Stream Batch Process

  There are two methods to batch process HD-16DVR-D Stream:

  Method 1: Select HD-16DVR-D Stream in the drop-down list as below:

Figure 5-20 Batch Process-Select HD-16DVR-D Stream



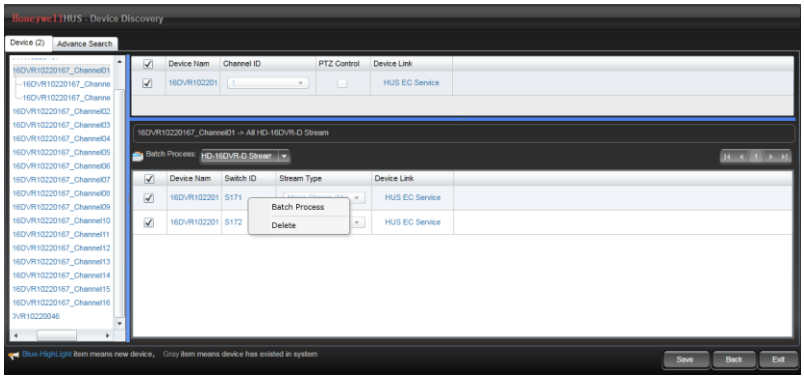
The following window is displayed:

Figure 5-21 Batch Process-HD-16DVR-D Stream

Select the checkboxes before the parameters to be batch processed and set the parameters. Click **OK** to save the settings or click **Cancel** to exit.

Method 2: Click the device channel whose streams to be batch processed in the device tree in the left pane. The following interface is displayed:

Figure 5-22 Batch Process-Select HD-16DVR-D Stream



Select the streams to be batch processed. Right click and select “Batch Process” or click **HD-16DVR-D Stream**. The following window is displayed:

Figure 5-23 Batch Process-HD-16DVR-D Stream

Select the checkboxes before the parameters to be batch processed and set the parameters. Click **OK** to save the settings or click **Cancel** to exit.

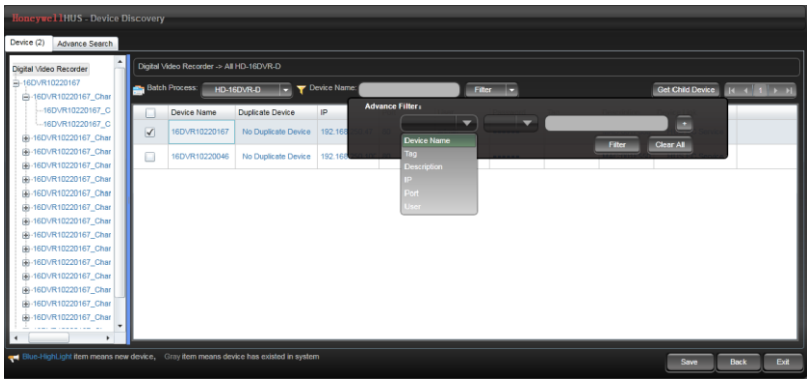
Filter

Filter function is used for filtering devices in the searching results.

Enter the “Device Name” in *Figure 5-*and click **Filter** to filter the devices.

Or click the dropdown menu after **Filter** and click **Advance Filter** to set the advance filter conditions as below:

Figure 5-24 Advance Filter



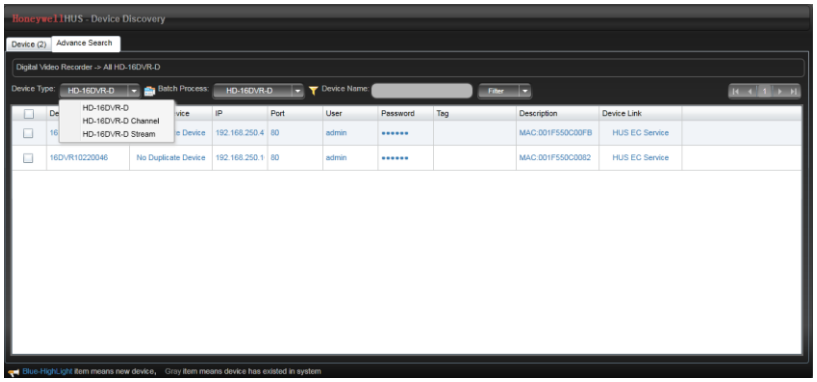
Click **Filter** to filter the devices.

Advanced Search

Advanced Search is used for filtering the discovery results and batch processing the filtered devices.

Click “Advance Search” tab in the left pane, the following interface is displayed:

Figure 5-25 Advance Search



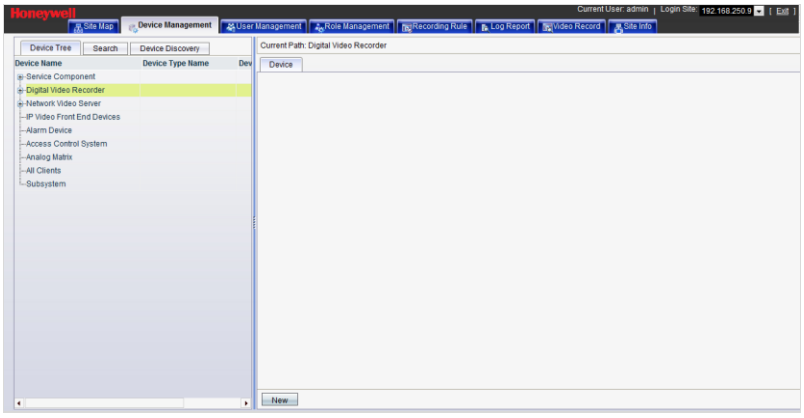
Select HD-16DVR-D, HD-16DVR-D Channel or HD-16DVR-D Stream in the device type to list all the corresponding devices. You can batch process them or do the further filter.

Adding Devices Manually

As shown in *Figure 5-* , you can add devices such as service, DVR, encoder, alarm device, access, matrix, client, and so on. The steps of adding these devices are almost the same. This chapter provides a case of adding HD-16DVR-D to describe the operations of adding devices.

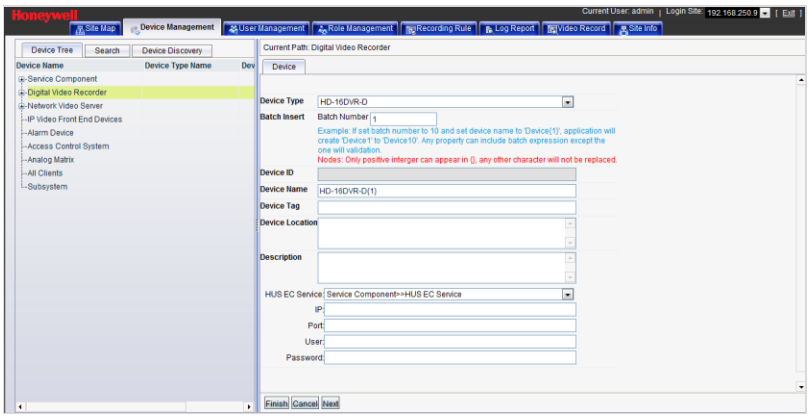
Click “Digital Video Recorder” in the “Device Tree”, and the following tab page displays:

Figure 5-26 Creating a New Service



Click **New**, and the following tab page displays:

Figure 5-27 Adding Information for the New Service



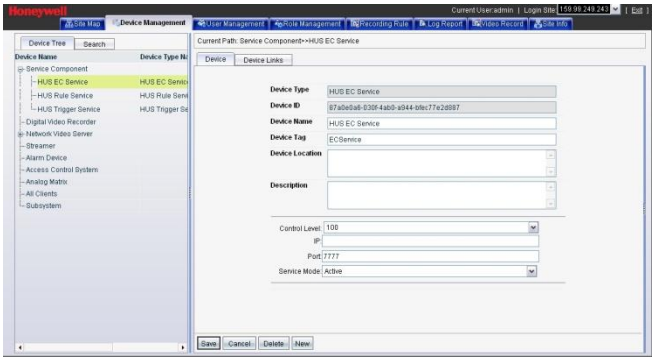
Select “HD-16DVR-D” in “Device Type”, set properties and device parameters for the new service, and click **Save**. When the saving completes, the new device is displayed in the left “Device Tree”.

- Devices or components can be added in batch by entering batch number in “Batch Insert”. Any property can include batch expression except the one will validation. Example: If set batch number to 10 and set device type to 'Device{1}', application will create 'Device1' to 'Device10'. But the specifically parameters for each device or component will be set or modified after being added.

Modifying Devices

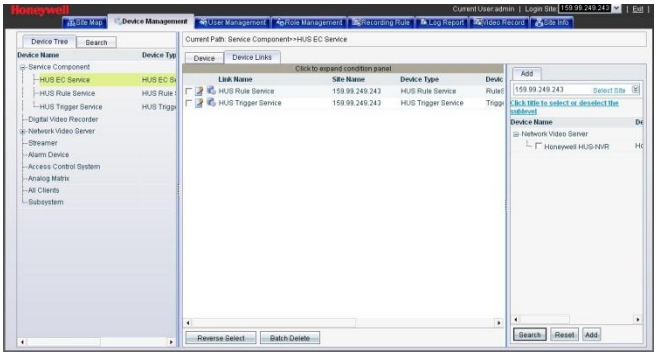
In the “Device Tree”, click the device name you want to modify, and then the properties of the device are shown in the right pane.

Figure 5-28 Device Information



The “Device Links” tab displays the devices of higher and lower level for connection of this device (for example, the video encoder can be used for connection with the service to store or transmit the videos).

Figure 5-29 Device Connection

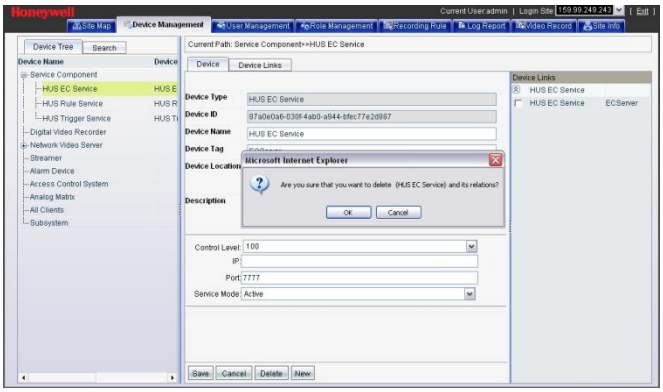


In the “Add” pane, select the device names, and click **Add** to connect the device with the service. By selecting the connected devices and clicking **Batch Delete** you can break the connection between the selected devices and services.

Deleting Devices

In the “Device Tree” select the devices you want to delete (see *Figure 5-5)*, and click **Delete** on the bottom of the “Device” pane. Then the following dialog box for confirmation pops up.

Figure 5-30 Deleting a Device



Click **OK** to delete the devices, or click **Cancel** to cancel the operation.

Editing “OSD”

To edit OSD for Honeywell Pioneer Enhanced Series IP Camera (Protocol) and HUSS-E4Vdevices, follow the operations below:

Select the target device in the device tree and click **Edit** in the right pane. The following OSD Editor window is displayed:

Figure 5-31 OSD Editor

Refer to the following table for the icons on the top right corner of the video window:

Table 5-1 Icons in the Video Window

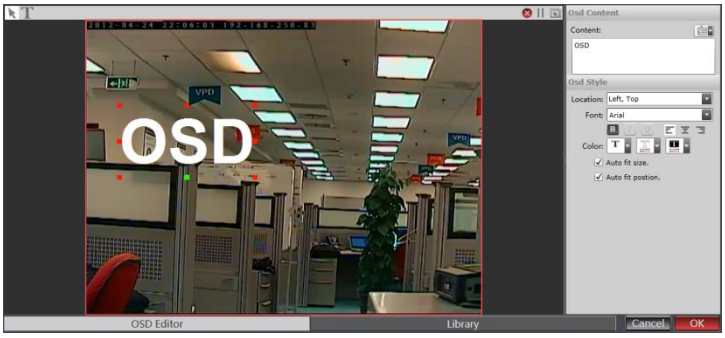
Icon	Description
	Remove
	Pause/Play
	Toggle the video rectangle size (Minimum Display/Lock Aspect Ratio/Full Screen)

Users can configure “OSD Editor” and “Library”. Click  to quit without saving the configurations. Click  to save the configurations.

OSD Editor

Click  on the upper left corner and the follow the “Draw shapes here.” information to draw shape In the video window. The following window is displayed:

Figure 5-32 Add OSD

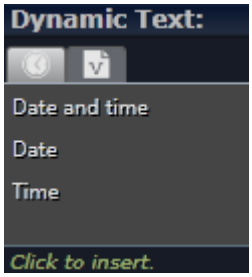


Select the target OSD and edit the following contents in the right pane:

- OSD Content

  Enter the texts to be displayed on the screen in the “Content”; or click  the on the upper right comer to insert dynamic texts:

  Figure 5-33Dynamic Text



- OSD Style

  Configure the location, font, color and other properties of the OSD texts;

  If select “Auto fit size”, the size of the texts will scale with the video rectangle size and the tests will keep the aspect ratio;

  If select “Auto fit position.”, the margin of the texts will scale with the video rectangle size. It’s invalid when the location is “left, center”, “center, top”, “center, center”, “center, bottom” or “right, center”.

Library

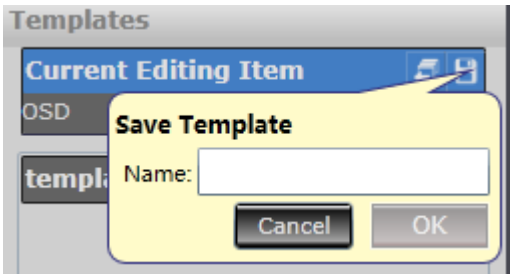
Click the “Library” tab and the following window is displayed:

Figure 5-34 Library

- Save Template

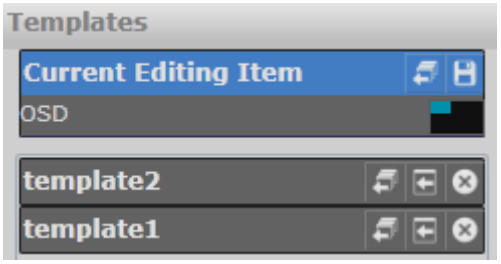
  Select the  on the right of the “Current Editing Item” to save the current editing item at a template:

Figure 5-35 Save Template



Enter the template name and click **OK**. And the saved template is listed under the "Current Editing Item":

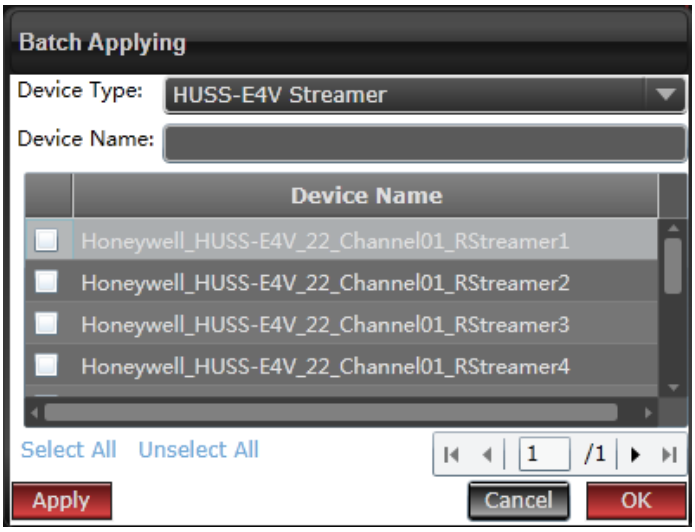
Figure 5-36 Templates



- Batch Applying

To apply the template to devices in bathes, select the  on the right of the "Current Editing Item" or the  on the right of the template. The following window is displayed:

Figure 5-37 Batch Applying



Select the target device in the drop-down list of the "Device Type". Enter the target device name in the "Device Name" and the related devices will be listed. Select the target devices and click  to apply the current editing OSD to the devices.

- Load Template

To edit the OSD of the target template, double click the target template or click  on the right of the target template.

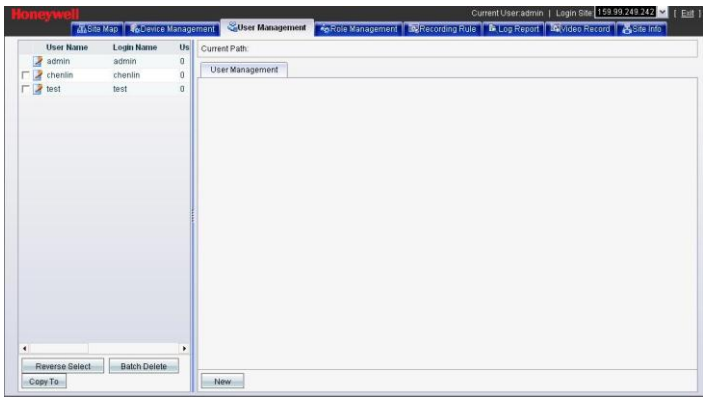
- Delete

To delete the target template, click  on the right of the target template.

Users Management

User Management allows user to set username, password, and other information for a specific user, and assign one or more roles to this user. Click **User Management**, to see the following screenshot.

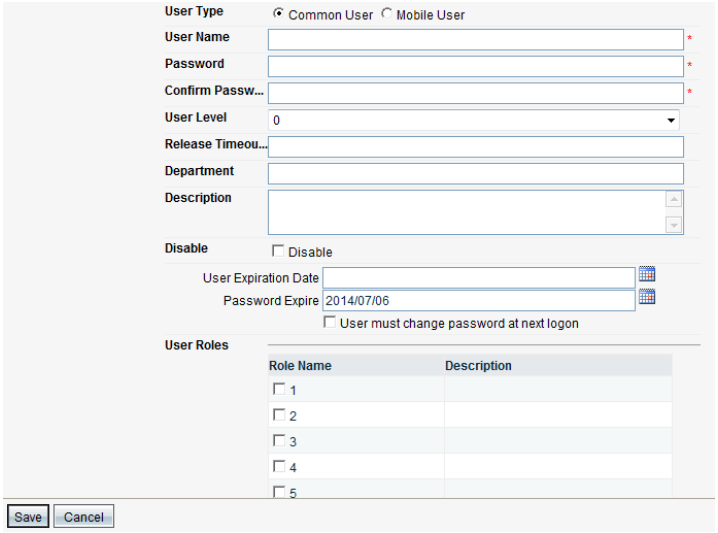
Figure 5-38 User Management



Adding a User

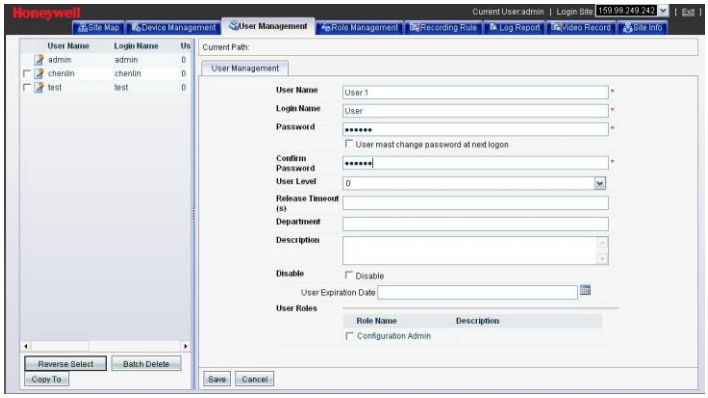
Click **New** to open the “User Management” tab.

Figure 5-39 Adding a new User



Select “Common User” or “Mobile User” first, fills in the user’s information. The login name and password is used to log in HUS-SWP-32S Server or client. The user level ranges from 0 to 255; the bigger the number, the higher the control priority is (for example, when two users link to one video encoder’s cradle head at the same time, the command of the user of high priority is sent to the cradle head). User name, login name and department are supplemental options, which are defined by the customers themselves and do not affect the operations of HUS-SWP-32S Server. By selecting one or more roles (for detailed steps of role management, see *Role Management*), you can grant the user corresponding authorities.

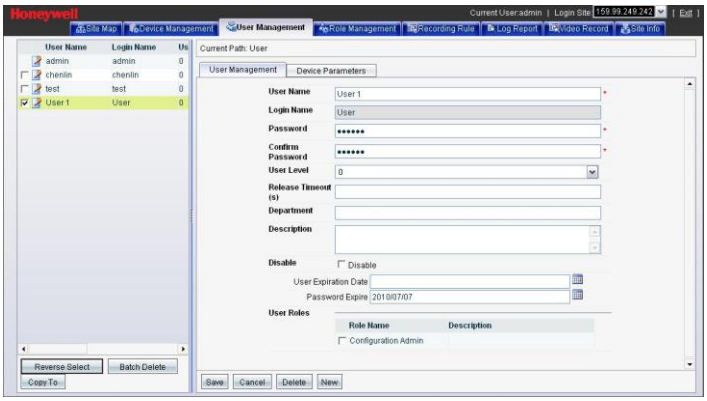
Figure 5-40 Filling in the New User’s Information



Click **Save**. After the saving is complete, user can see the newly created username in the left user list, while the new user's general information and role information is shown on the right.

Note: * fields are mandatory to be fill in, while others are optional.

Figure 5-41 Success in Adding a New User



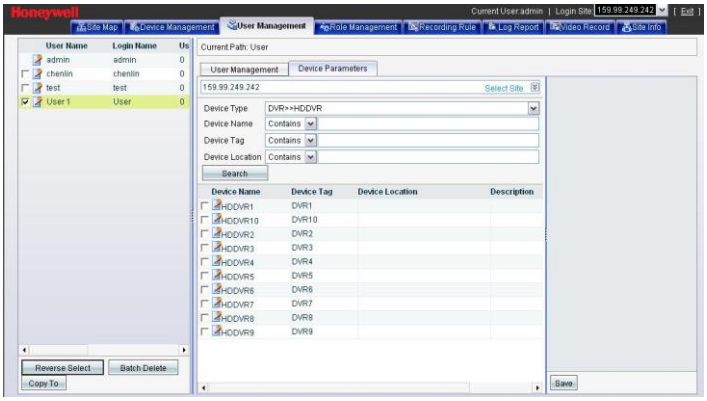
Modifying Users

In the user list, click the username user want to modify; the user's information is will be displayed in the right pane (see *Figure 5-*).

On the "User Management" tab, user can modify properties such as username, login name, password, and so on. Then click **Save**.

On the "Device Parameters" tab, user can see the user's device and set the device parameter. If users enter the DVR login username and password and click **Save**, the user can get the corresponding operation authority of this DVR.

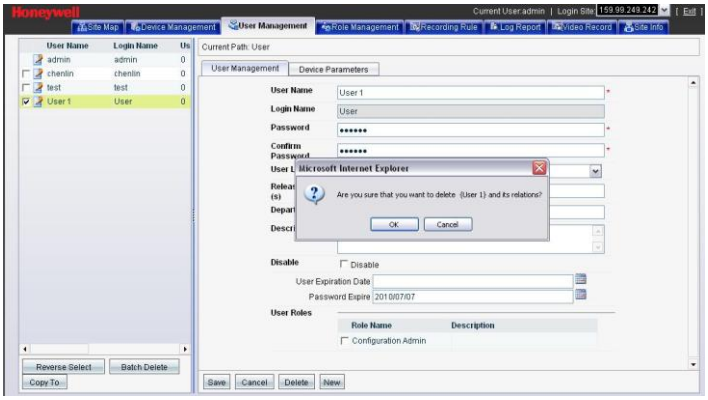
Figure 5-42 Modifying the User – Device Parameters



Deleting Users

To delete a single user, click the username you want to delete in the left user list, and then the user's information is displayed in the right pane. Click **Delete**, and a confirmation dialog box pops up as follows.

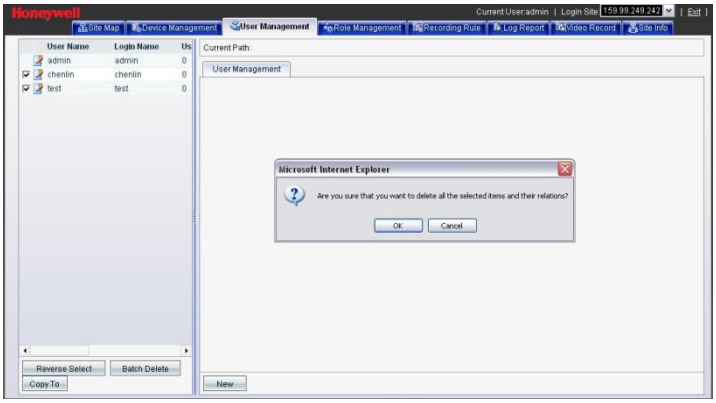
Figure 5-43 Deleting a User



Click **OK** to delete this user.

To delete multiple users, select the users that user want to delete in the left user list, and then click **Batch Delete**. A confirmation dialog box pops up as follows.

Figure 5-44 Deleting Multiple Users

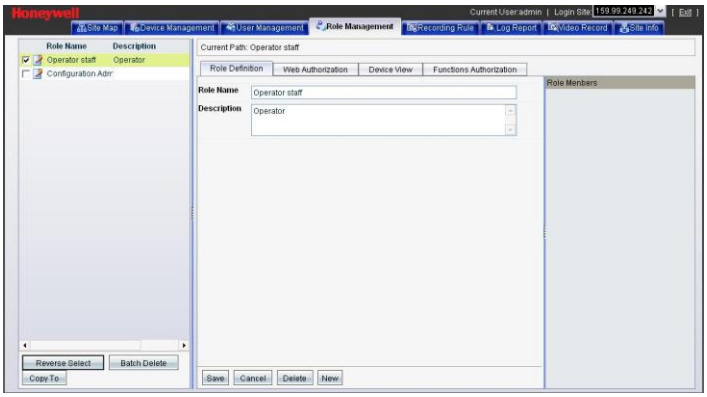


Click **OK** to delete the selected users.

Role Management

Role Management allows user to grant proper authorities to different roles, so that user can choose the needed authority conveniently when managing the users. Click **Role Management** to open the role management page.

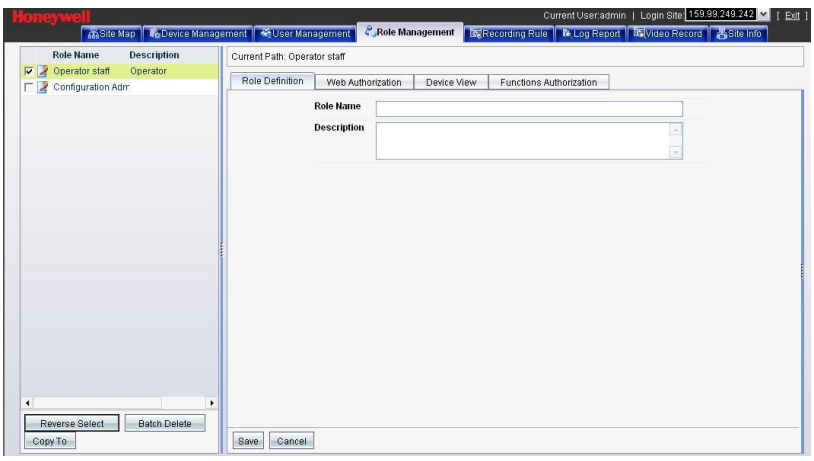
Figure 5-45 Role Management



Adding a Role

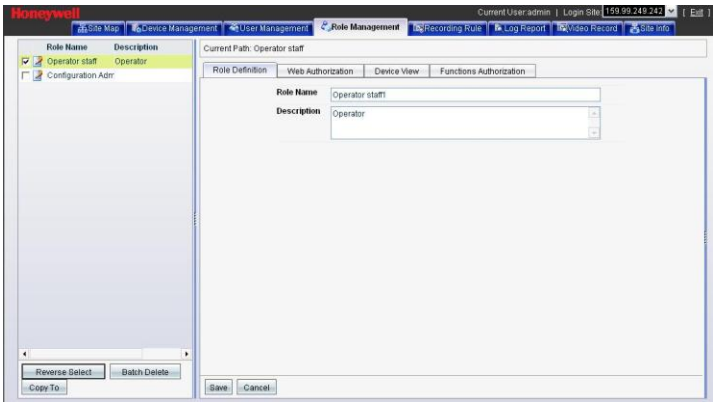
Click **New** as shown in *Figure 5-45*, and the page for adding new roles is displayed as follows.

Figure 5-46 Adding a Role



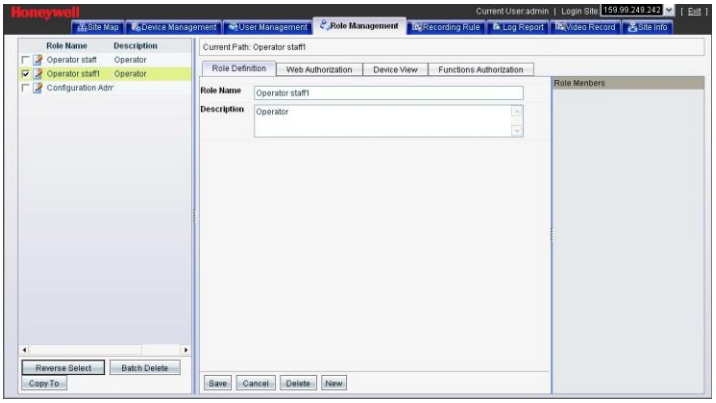
Enter the role name and role description.

Figure 5-47 New Role Name and Description



Click **Save**. After saving is complete, a new role is added to the left user list, while the role's properties are shown in the right pane.

Figure 5-48 Success in Adding a New Role

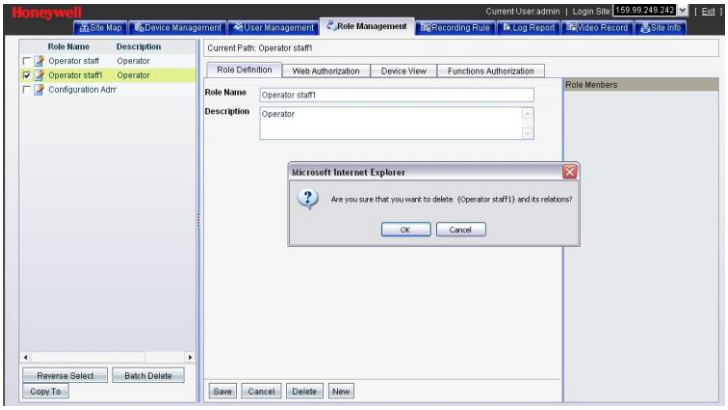


User can set various authorities for the role on the tabs of "Web Authorization", "Device View", and "Functions Authorization". See *Modifying Role* .

Deleting Roles

To delete a single role, click the role you want to delete in the left role list, and click **Delete** in the right pane displaying role information. A confirmation dialog box pops up as follows.

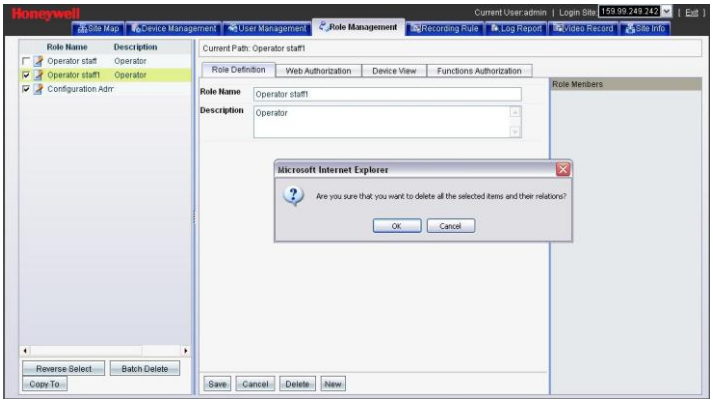
Figure 5-49 Deleting a Role



Click **OK** to delete the selected role.

To delete multiple roles, select multiple roles that you want to delete in the role list, and click **Batch Delete** on the bottom left. A confirmation dialog box pops up as follows.

Figure 5-50 Deleting Multiple Roles

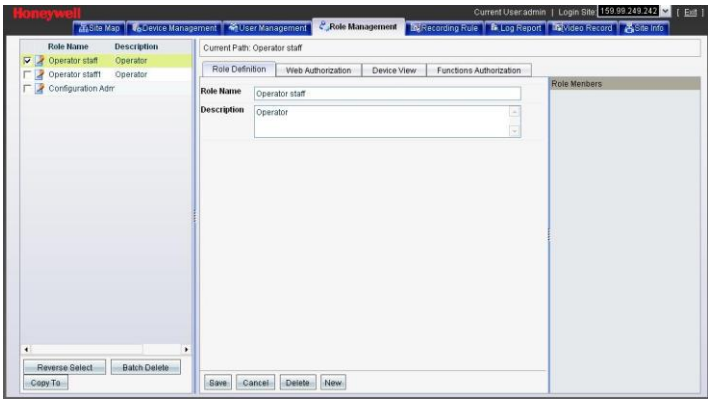


Click **OK** to delete the selected roles.

Modifying Roles

In the role list, click the icon to the left of the role name that you want to modify, and the role's properties are shown in the right pane.

Figure 5-51 Role Management Page

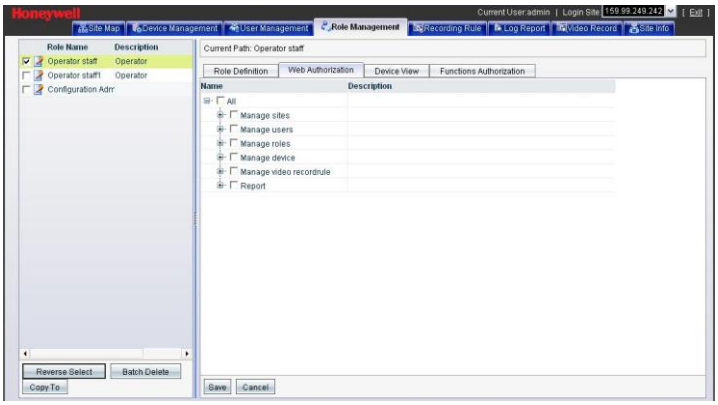


On the "Role Definition" tab, user can modify the role's name and description. Then click **Save**.

On the "Web Authorization" tab, user can modify the operation authorities of the role in HUS-SWP-32S Server, including site management, user management, role management, device view, device management, recording rule, device event, device operation, recording, device type group, device type, and so on. Each of these respectively corresponds to a sub-page of the Server:

Manage sites, manage users, manage roles, manage device view, manage devices, manage device type, manage record rule, and report.

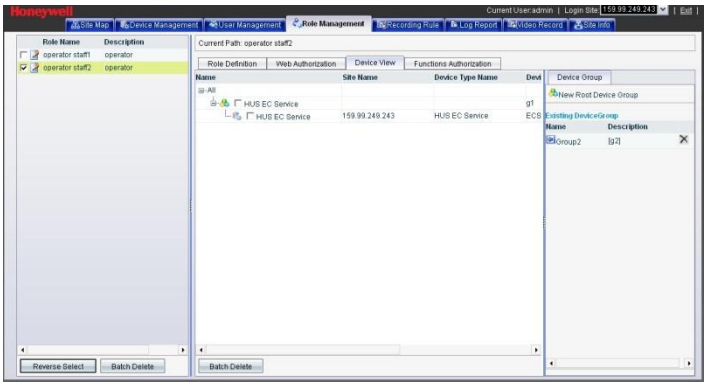
Figure 5-52 Web Authorization for Roles



Click ⊞ or ⊟ in front of the authority groups and user can expand or hide the specific authorities in the group. By clicking ☐ to the left of the authority-group name, user can select all the specific authorities in the authority group. Click **Save** to save the modifications.

On the "Device View" tab, user can view and configure the specific devices available.

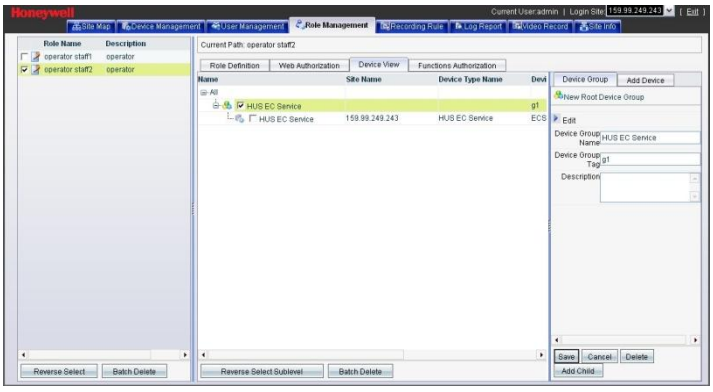
Figure 5-53 Role's Device View



The existing devices are listed in the middle; by clicking ⊞ or ⊟ in front of the device group user can expand or collapse the device tree. To delete devices, select the devices user want to delete, and click **Batch Delete** to delete the selected devices from the role's authority.

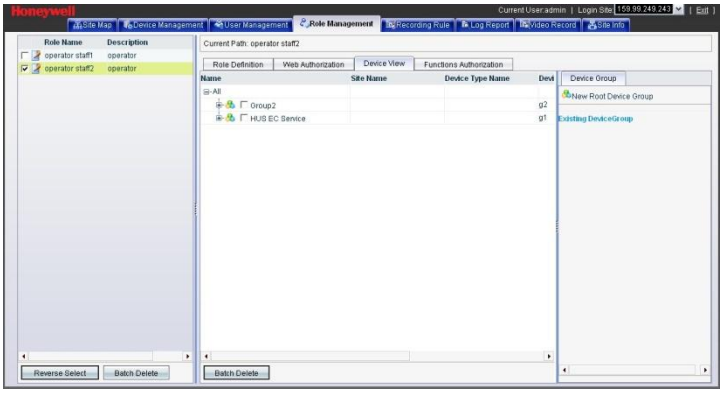
Select and expand the root node "All" to view the available device groups (*Figure 5-54* Assigning the Device to Multiple Roles. Assign a device group to the current role, or click **Create Root Device Group** to create a new device group for the current role.

Figure 5-54 Assigning the Device to Multiple Roles



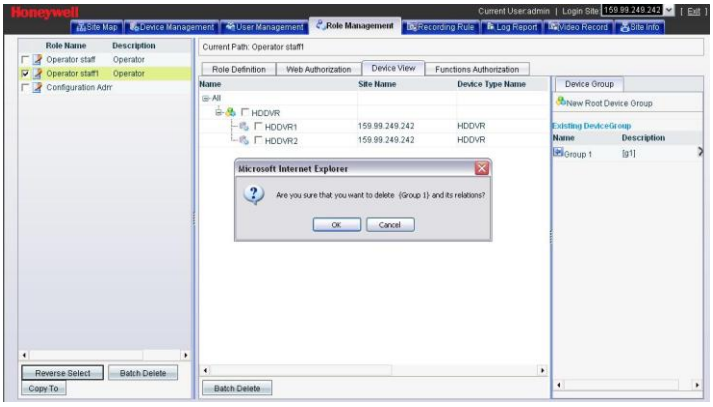
Select the available device group (such as device group 2) and assign it to the current role. The following figure is displayed:

Figure 5-55 Role's Functions Authorization



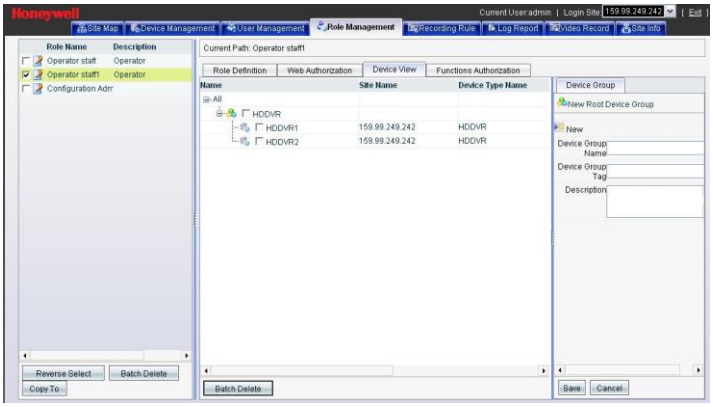
Click the delete button ✕ beside the device group to delete a specific device group, and the role that owns this device group automatically deletes the related reference.

Figure 5-56 Deleting Specific Device Group



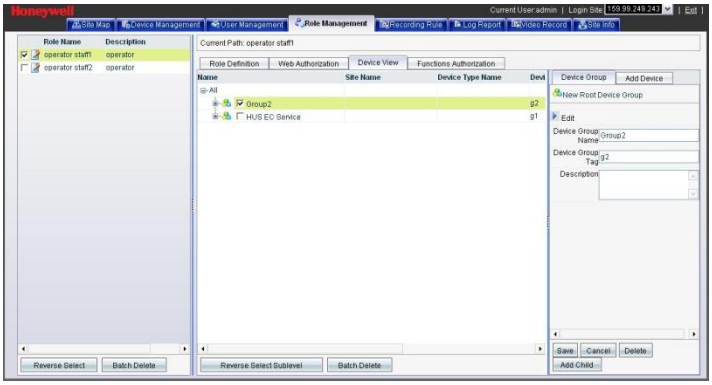
Click **Create Root Device Group** to assign a new device group to the current role, which is displayed as follows:

Figure 5-57 Creating Root Device Group



Input a name, device-group tag, and description for the new device group. Click **Save**, and the new device group is displayed in the left device-group list.

Figure 5-58 Adding Device Group

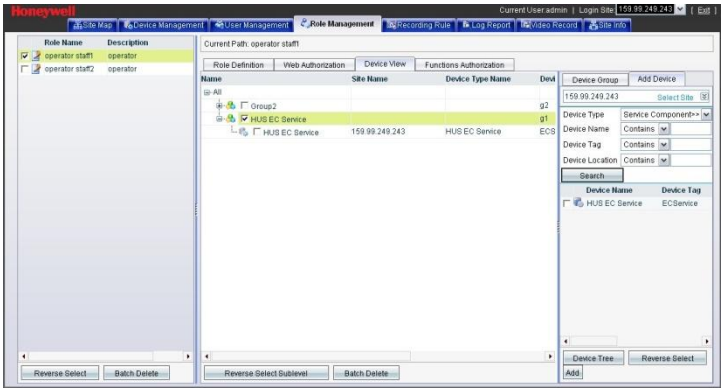


Select a device group to be modified in the device-group list, and the right pane displays the corresponding information of this group.

On the “Device Group” tab, user can modify the name, tag, and description of the device group. Click **Save** to save the settings.

In the “Add Device” pane, user can click ⊞ or ⊟ to expand or collapse the device tree, select the device to be added, or click the device group or name to reverse the selection of the sub-devices. Click **Add** to save the modification, or click **Reset** to cancel the selection.

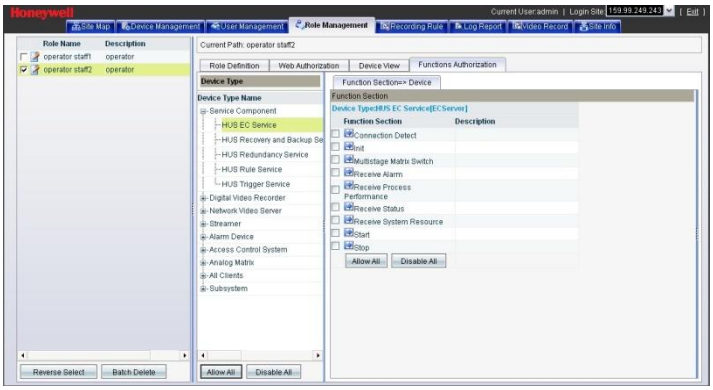
Figure 5-59 Adding Device



User can add more than one group with different devices to a rule against the role's need. For example, user can add both "Video Devices" group and "the Fourth Floor" group to the "Guide" role.

On the "Function Authorization" tab, user can configure the function authorization to a certain type of devices for a role.

Figure 5-60 Function Authorization

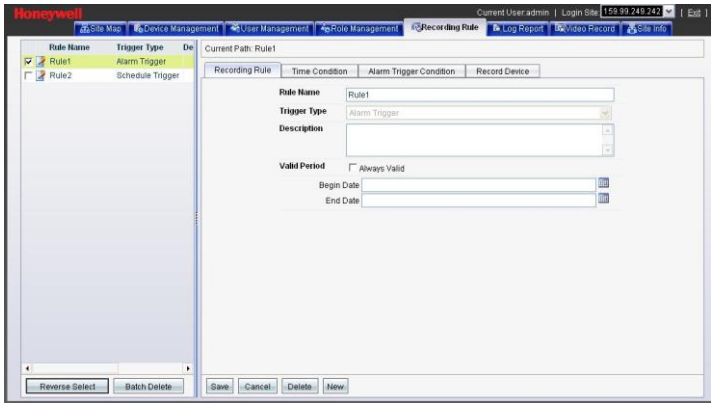


Recording Rule

In the "Recording Rule" pane, user can set the rule for video recording.

Click **Recording Rule** on the **Record** menu, and the following tab opens.

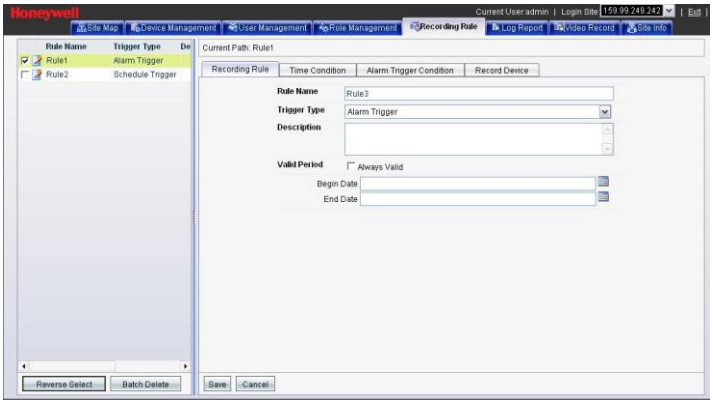
Figure 5-61 Video Recording – Recording Rule



Adding a Recording Rule

Click **Add**, and user can see the following open tab.

Figure 5-62 Creating New Recording Rule



Input the name and description of the new rule, select a trigger type, set the video's duration and the rule's valid period after the video recording begins, and then click **Save**. You can see the newly added rule is displayed in the left rule list, and you can continue to edit the rule's properties such as recording device (see the next chapter for detailed content).

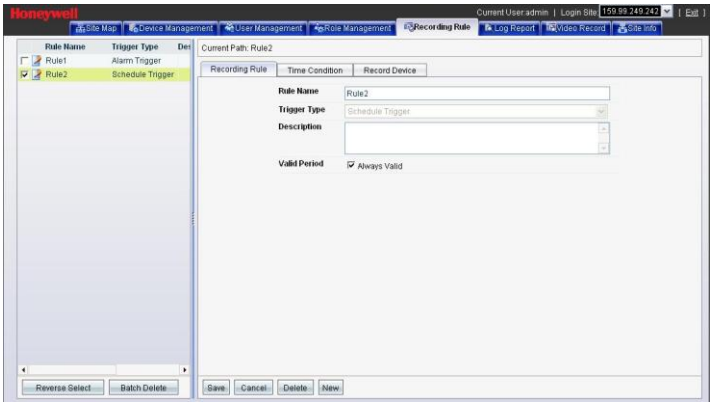
Modifying a Recording Rule

Plan for Trigger

Click the icon  in front of the name of the rule that user want to modify, and the pane for editing rules opens.

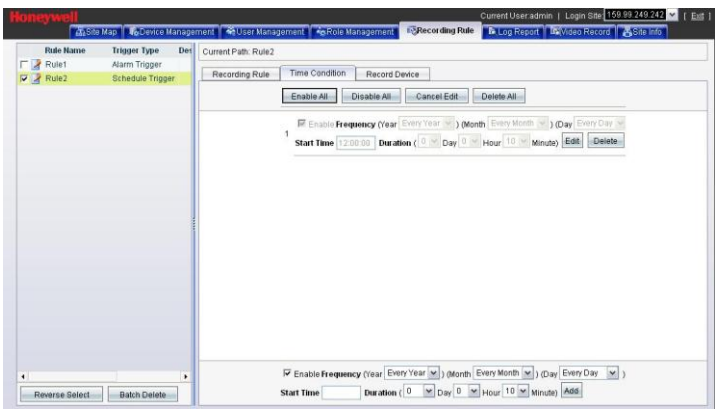
On the "Recording Rule" tab, user can modify the rule's name, description, duration, and valid period. Then click **Save**.

Figure 5-63 Modifying the Recording Rule (Schedule)



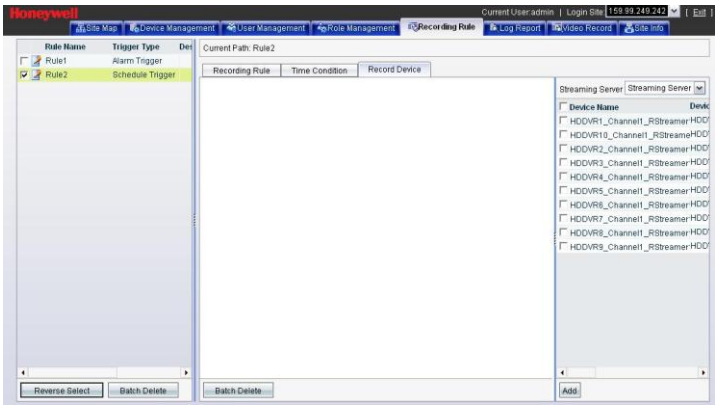
On the "Time Condition" tab, user can modify or delete the existing recording plan, add a new recording plan, and enable or disable the recording rule. Click **Edit** or **Delete** to control a single recording plan; click **Enable All**, **Disable All**, **Cancel Edit**, or **Delete All** to control all the recording rules; click **Add** to add new recording rules.

Figure 5-64 Time Condition (Schedule)



On the "Record Device" tab, user can view and delete the existing devices, and add other devices to the recording rule.

Figure 5-65 Modifying the Recording Rule – Device Name (Schedule)

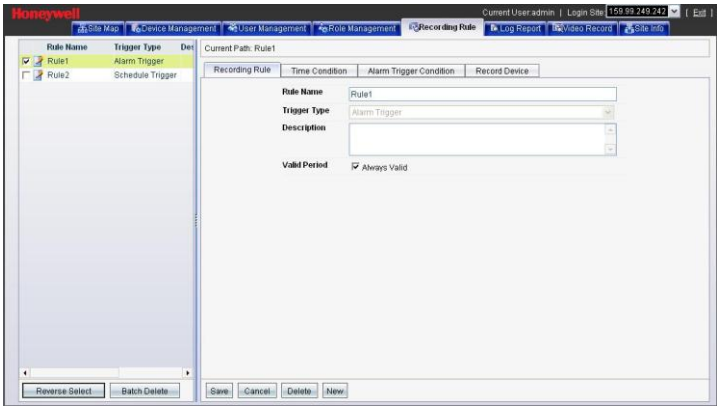


Alarm Trigger

Click the icon in front of the name of the rule user want to modify, and the pane for editing rules opens.

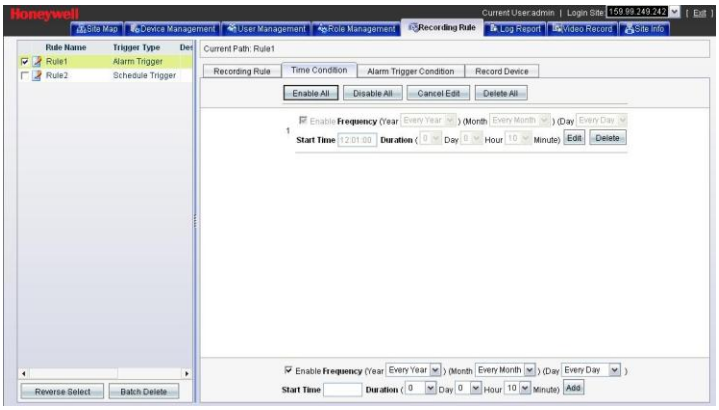
On the “Recording Rule” tab, user can modify the rule’s name, description, duration, and valid period. Then click **Save**.

Figure 5-66 Modifying the Recording Rule (Alarm)



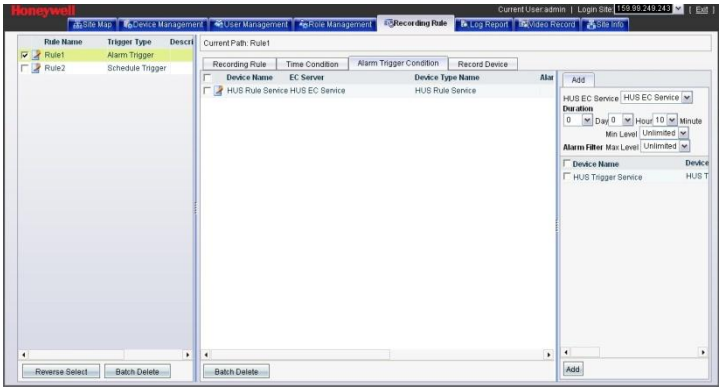
On the “Time Condition” tab, user can modify or delete the existing recording plan, add a new recording plan, and enable or disable the recording rule. Click **Edit** or **Delete** to control a single recording plan; click **Enable All**, **Disable All**, **Cancel Edit**, or **Delete All** to control all the recording rules; click **Add** to add new recording rules.

Figure 5-67 Time Condition (Alarm)



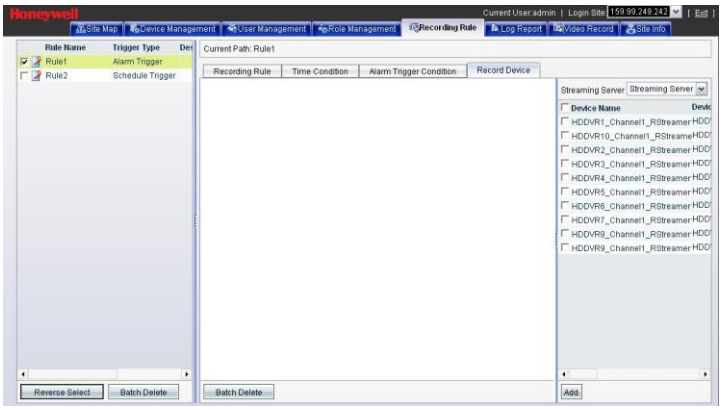
On the “Alarm Trigger Condition” tab, user can view or delete the existing alarm source and add other alarm sources to the recording rule.

Figure 5-68 Alarm Trigger Condition



On the “Record Device” tab, user can view or delete the existing devices and add other devices to the recording rule.

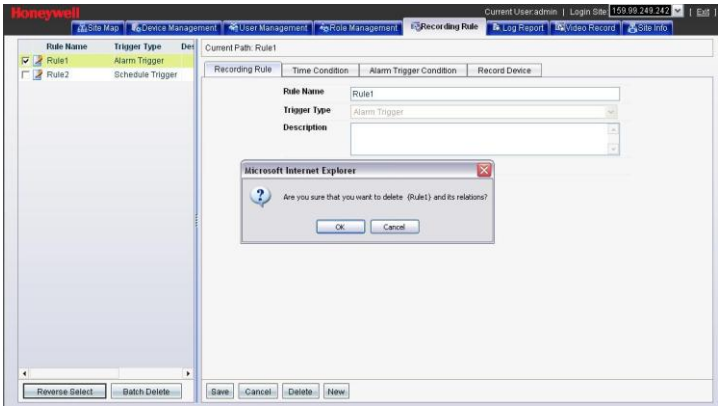
Figure 5-69 Record Device (Alarm Trigger)



Deleting Recording Rule

In the pane for editing rules, click **Delete**, and a dialog box for confirmation opens.

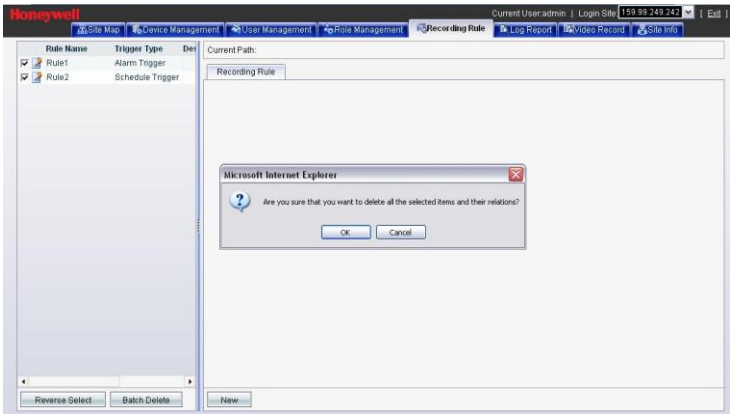
Figure 5-70 Deleting Single Recording Rule



Click **OK** to delete this rule.

To delete multiple recording rules, select the rule that user want to delete in the recording rule list, and click **Batch Delete**. Then the following dialog box opens for confirmation.

Figure 5-71 Deleting Multiple Recording Rules



Click **OK** to delete the selected recording rule, or click **Reverse Select** to cancel the selection.

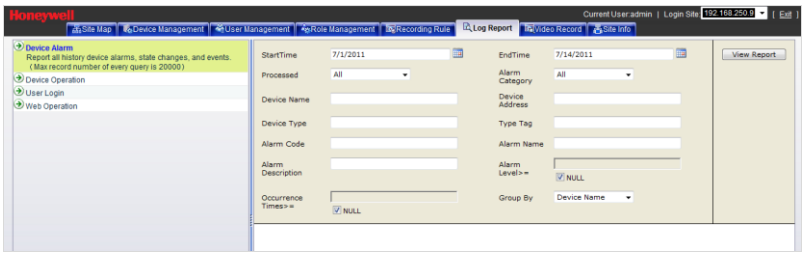
Log Report

You can search the device alarm events, device operations, user login, web operation, and you can also set query conditions to get result quickly.

Device Alarm Log

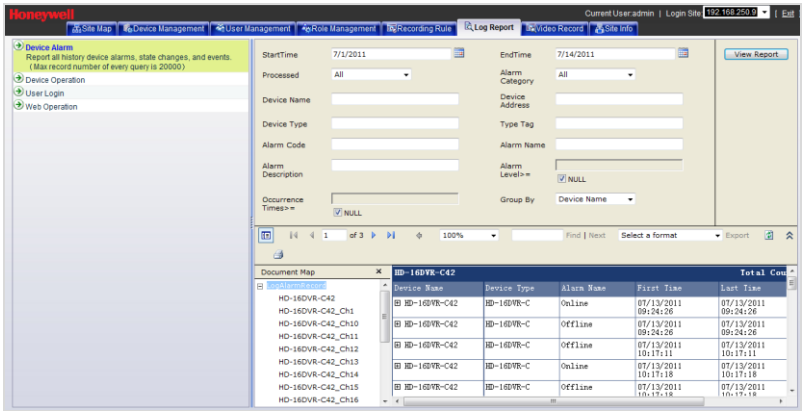
Click **Log Report**, select “Device Alarm” to go to the query page of “Device Alarm”.

Figure 5-72 Device Alarm Log



Set proper query conditions, click **View Report**, and the records of alarm events that match the conditions are displayed in the right pane. Expand an alarm event record, and you can see the detailed information of the record.

Figure 5-73 The Query Results of the Device Alarm Log



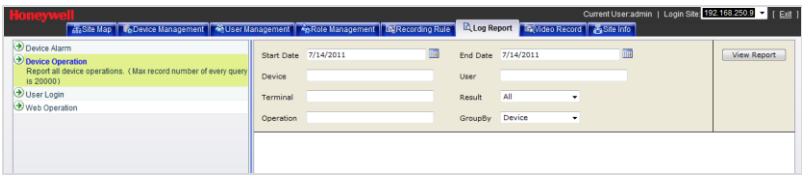
After finishing the search, you can locate the information of interest to users with the toolbar buttons, using which you can also print the information.

The system also supports exporting the query results to a target file. Select an output file format in the ”Export” dropdown-list, and click **Export** to export all the information in this search to a target file.

Device Operation Log

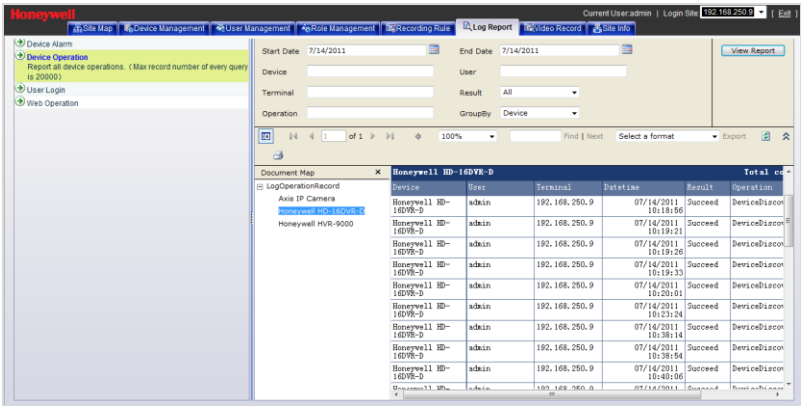
Click **Log Report**, select “Device Operation” to go to the query page of “Device Operation”.

Figure 5-74 Device Operation Log



Set the corresponding query conditions, click **View Report**, and the device operation log that matches the conditions is displayed in the right pane. The log contains “Device”, “User”, “Terminal”, “Result”, and “Operation”.

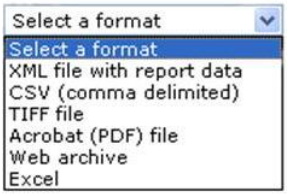
Figure 5-75 The Query Result of the Device Operation Log



After finishing the search, you can locate the information of interest to users with the toolbar buttons, using which you can also print the information.

The system also supports exporting the query results to a target file. Select an output file format in the ”Export” dropdown-list, and click **Export** to export all the information in this query to a target file.

Figure 5-76 Different Output File Formats for Query

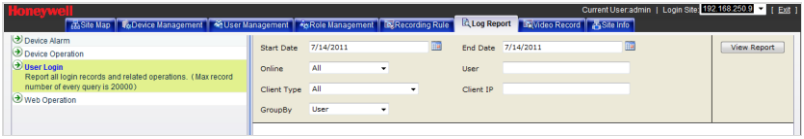


Excel has the maximum data limitation. There will be an error when output data is over 65536 rows. Reduce the search time and try again.

User Login Log

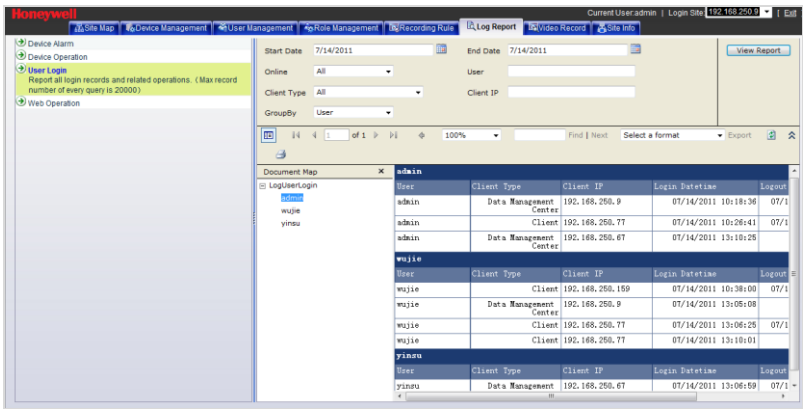
Click **Log Report**, select “User Login”, and you can go to the search page of “User Login”.

Figure 5-77 User Login Log



Set corresponding query conditions, click **View Report**, and the user login log that matches the conditions is shown in the right pane. The log contains the login users, client type, Client IP, start data, and end date.

Figure 5-78 The Query Results of the User Login Log



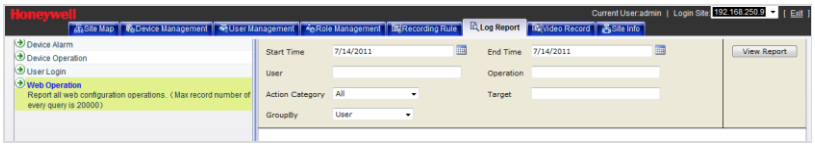
After finishing the search, you can locate the information of interest to users with the toolbar buttons, using which you can also print the information.

The system also supports exporting the query results to a target file. Select an output file format in the ”Export” dropdown-list, and click **Export** to export all the information in this search to a target file.

Web Operation Log

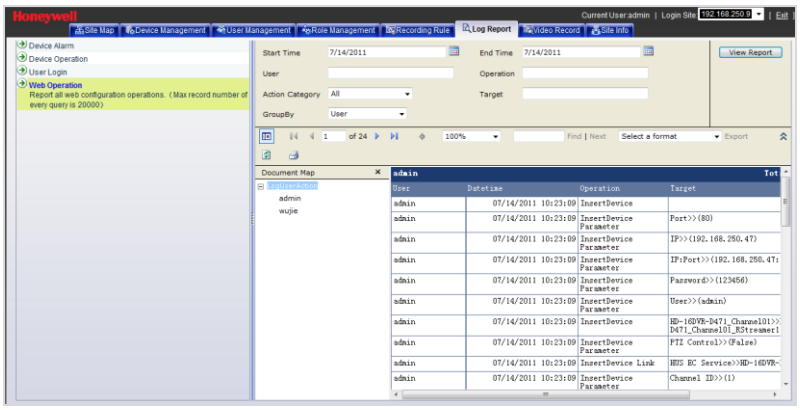
Click **Log Report**, select “Web Operation”, and you can go to the query page of “Web Operation”.

Figure 5-79 Web Operation Log



Set corresponding query conditions, click **View Report**, and the web operation log that matches the conditions is shown in the right pane. The log contains the web information about the username, operation time, operation and target…

Figure 5-80 The Query Results of the Web Operation Log



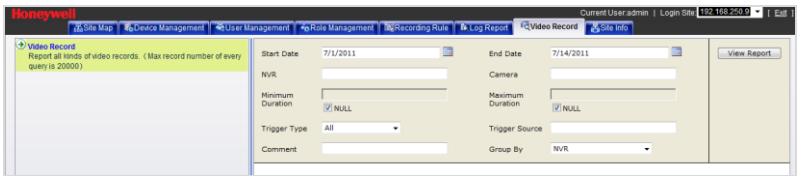
After finishing the search, you can locate the information of interest to users with the toolbar buttons, using which you can also print the information.

The system also supports exporting the query results to a target file. Select an output file format in the ”Export” dropdown-list, and click **Export** to export all the information in this search to a target file.

Video Record

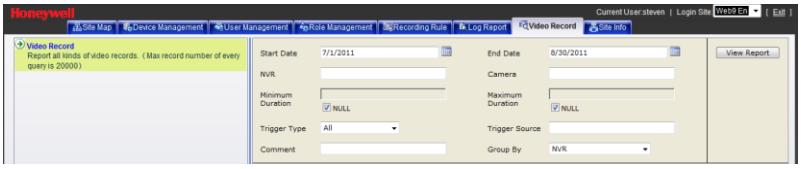
Click **Video Record**, and you can go to the corresponding query page.

Figure 5-81 Video Record Search



Set corresponding query conditions, click **View Report**, and the video records that match the conditions are listed in the right pane, including the name of the Streaming Server, video recording device, the start date and end date of video recording and the duration of video recording.

Figure 5-82 The Query Results of Video Record



After finishing the search, you can locate the information of interest to users with the toolbar buttons, using which you can also print the information.

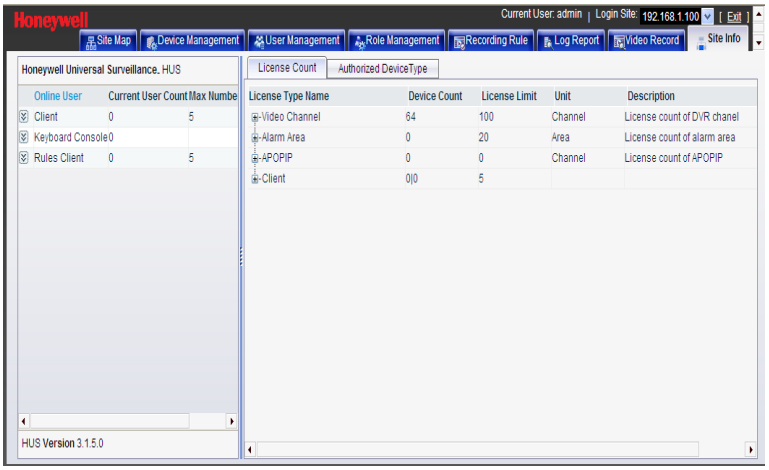
The system also supports exporting the query results to a target file. Select an output file format in the ”Export” dropdown-list, and click **Export** to export all the information in this search to a target file.

Site Info

The local site information contains the system information of HUS-SWP-32S Server running on computer, including version, information of the client, license limit, and device type.

Click the “Site Info” tab, which is shown in the following screenshot.

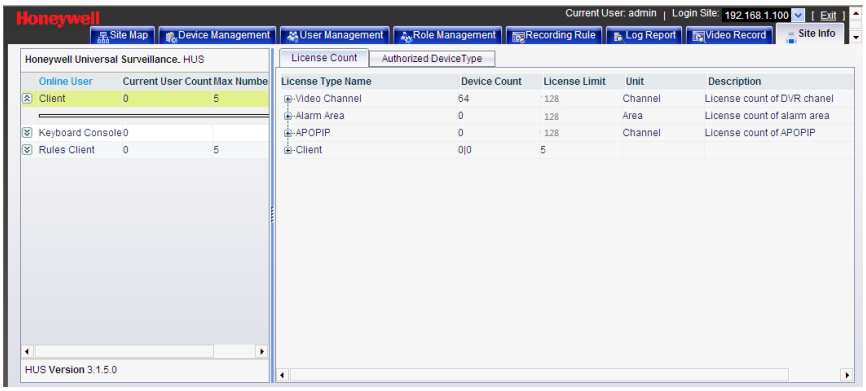
Figure 5-83 Local Site Information



The Current Information on the Client

Click the button to the left of “Client” to expand and view all the login names, login time, IP addresses, and other users’ basic information of the clients that are currently connected to the local site.

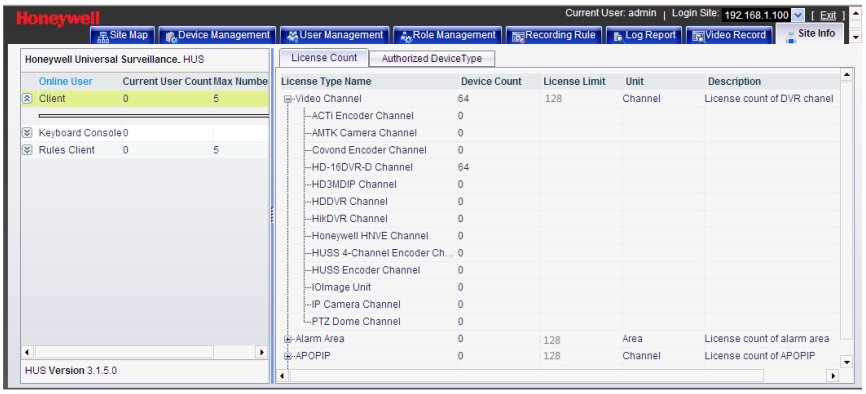
Figure 5-84 The Current Information on the Client



The Number of System Licenses

Click “License Count”, and you can see the number of licenses supported by the system, including the count of the currently connected devices and the license limit. Expand the tree, and you can see the numbers of specific devices.

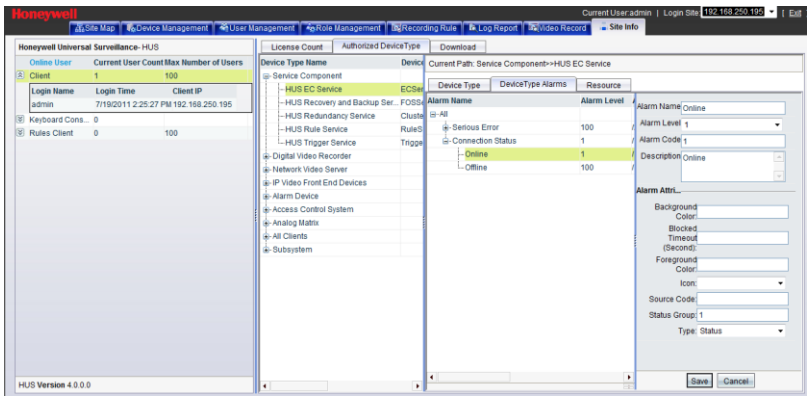
Figure 5-85 The License Count



Authorized Device Type

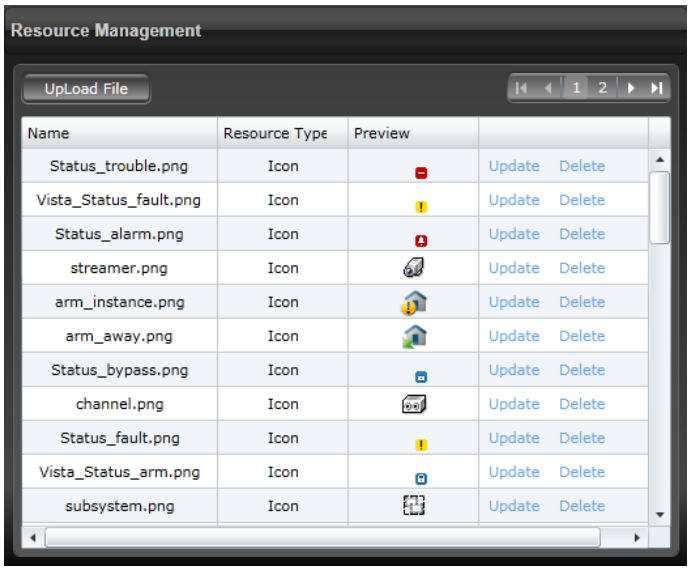
Click “Authorized Device Type”, and you can see the statistics for the types of connected devices supported by the system. Expand the tree to see the description of the specific device type:

Figure 5-86 The Device Type Supported by System



Click “Resource” and the following window is displayed:

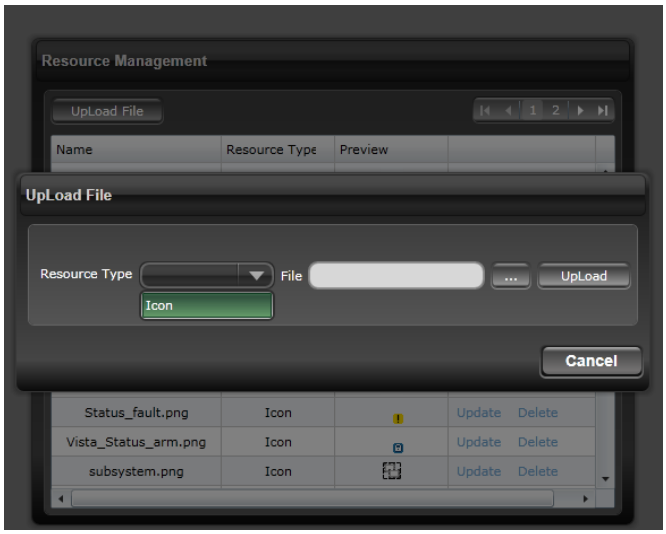
Figure 5-87 Resource Management



You can view, update and delete icons in this window.

Click **Upload File** and the following window is displayed:

Figure 5-88 Upload File

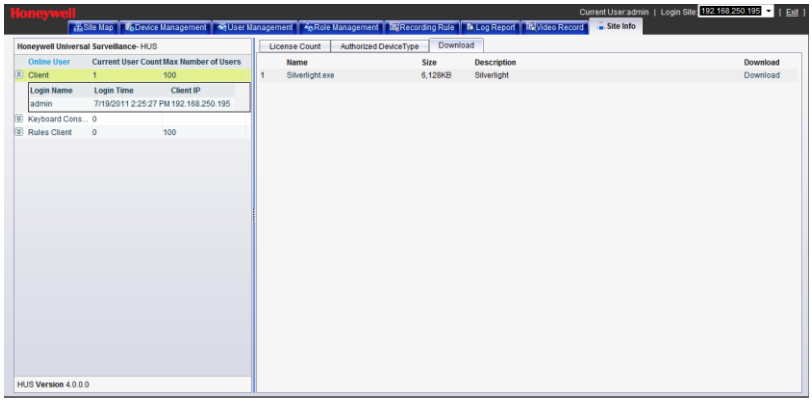


Select “Resource Type” and click “**…**” to select icons from the computer. Click **Upload** to upload icons.

Download

Click “Download” to download HUS video player.

Figure 5-89 Download



Logout

Click the **Logout** button 

on the top-right corner of the window to logout from HUS-SWP-32S Server, and returns to the system login page.

6 Event Control Service

Event Control Service receives device alarms and transmits the alarms to other system components (including Video Trigger Service and Rules Engine Service) that receive the alarms. EC (Event Control) Service also receives the control commands of the control devices from other components (including Video Trigger Service and Rules Engine Service) in system, and controls the devices in unison.

The Event Control Service receives information about alarms, events and state changes, consequently sending operation command and control information to front-end devices, it is compatible with different communication methods and formats, and caches the information locally.

Support Device

The EC Service can be connected to the following device types: encoders, decoders, IP cameras, DVRs, alarm devices, and matrix devices.

The types of specific devices supported and integrated functions differ, and integrated into the system as new systems or devices become available. For detailed information, consult a technical support expert.

Alarm Filter Mechanism

To distinguish different types of device data and avoid large amounts of repetitive device information being sent to the client, the information transmitted by EC Service is divided into three types: alarm, status, and event. Alarms are divided into blocked alarm, unblocked alarm, and timeout alarm. Depending on type of device information, the EC Service transmits the information differently.

Blocked alarm applies to the frequently occurring alarms whose occurrence time is not of concern each time. The EC Service filters the alarm device, type, and other detailed alarm information. For alarm information of the same type and content sent by the same device, the EC Service only transmits the first alarm until the client clears this alarm. The alarm type is defined as “Blocked Alarm” in “Alarm Attribute” of “Device Type”.

Unblocked alarm applies to important alarms whose occurrence time is considered to be important. For an unblocked alarm of the same type and content sent by the same device, the EC Service sends the cached and unclear alarm information to the client, according to the device information to be received by the client. The alarm type is defined as “Unblocked Alarm” in “Alarm Attributes” of “Device Type”.

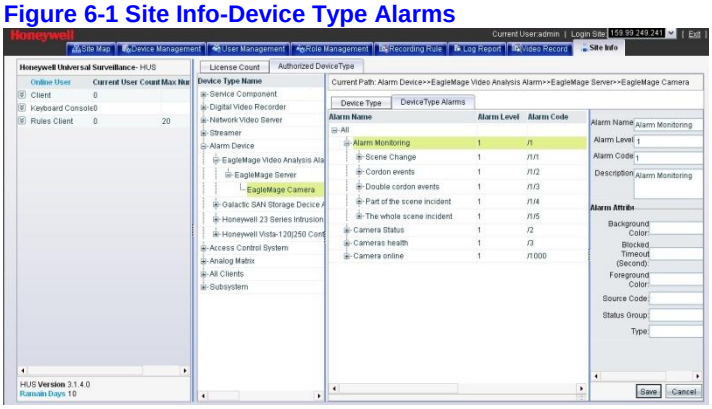
Timeout alarm applies to much more important alarms whose occurrence time is of concern. If the interval of occurrence between two alarms (with the same device, alarm type, and detailed alarm information) is less than the configured blocked timeout, then the alarm that occurs next time will be blocked instead of being transmitted to the client. The alarm type is defined as “Timeout Alarm” in “Alarm Attributes” of “Device Type”, and is set with the blocked timeout (unit: seconds).

The information about the device status is also processed in a blocked way on EC Service. The statuses of devices are classified into several status categories and all status information that describes the same feature constitutes a status group, e.g., device on line/off line; door open/closed. Please note that the status information in the same status group is substituted while not simultaneous. The device status describes the status of the device feature. The alarm type is defined as “Status” in “Alarm Attributes” of the “Device Type Alarms” tab.

The information of a device event is processed using the unblocked method on the EC Service. When the command control server receives information from device events, it transmits the information directly to the client that subscribed the device information. Device event describes the normal interactive information generated when devices are running. The alarm type is defined as “Event” in “Alarm Attribute” of “Device Type”.

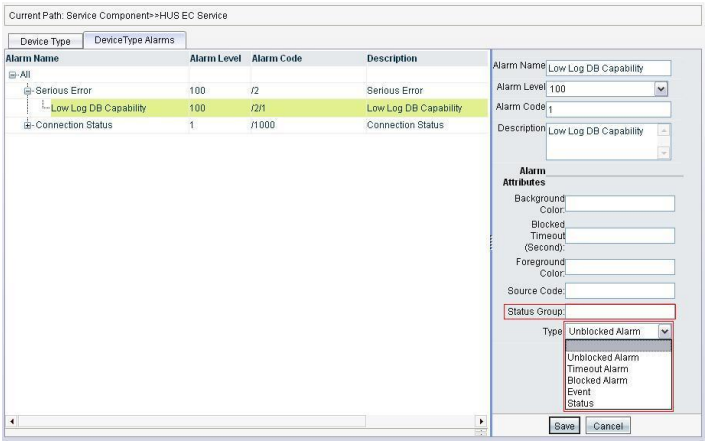
You can choose the alarm type in the **Site Info** tab in **HUS-SWP-32S Server**. Select alarm device in the **Device Type Name** tree in the **Authorized Device Type** tab, and the detailed information of the device will be showed on the right as below.

Figure 6-1 Site Info-Device Type Alarms



Select alarm device in the **Device Type Alarms** tab and choose the alarm type on the right as shown in the following screen shot.

Figure 6-2 Device Type Alarms



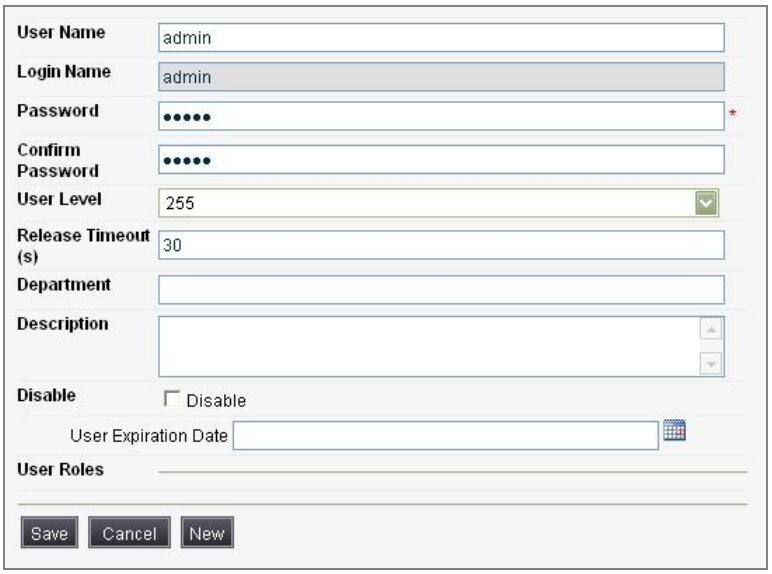
Choose the “Status Group” first if you define the alarm type as “Status”.

Judgment Mechanism for Control Priority

To deal conflict that occurs when multiple users control the same device at the same time, all the control commands used for devices are first sent to the EC Service, which differentiates between all incoming commands and then controls device control according to the appropriate command. The principle of decision making is described as follows.

The user of a higher level can take authority for device control from a user of lower level, but a user of lower level cannot take the authority for device control from a user of higher level or the same level. In the “User Management” page of the HUS-SWP-32S Server, the user level and expiry date of control authority can be configured. The user level ranges from 0-255, among which the lowest level is 0, and the highest level is 255, as shown in the following screen shot.

Figure 6-3 User Level



If a user gets control authority for a device, then the EC Service sets the release time of the control authority in cache.

In the caching process of control authority, if a user of lower level or the same level asks for control of the device, the device control authority remains unchanged, and the EC Service informs the user of the usernames holding device control authority and the remaining time in authority. If the user of a higher level asks control of the device, he/she can replace the original user and receive device control authority directly. If a user who asks for device control is one who is already holding device control authority, the cache time of control authority is extended to the next cycle. When the user's cache time of control authority expires, he/she loses control authority of the device automatically. This shifts the control authority to the next user which requests it.

7 HUS Trigger Service

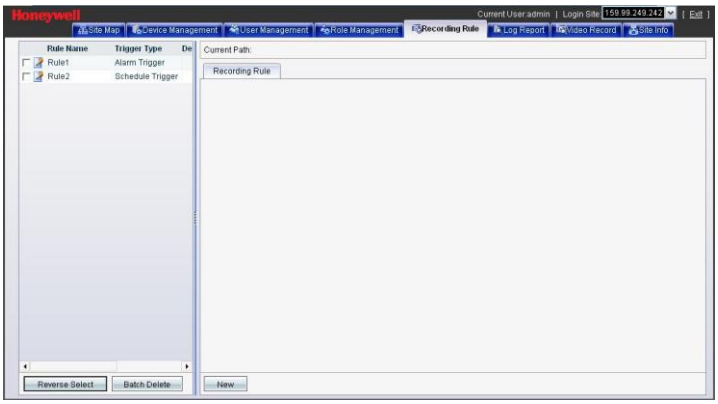
The HUS Trigger Service is a server application that triggers video recording at a predefined time or when an alarm occurs.

The HUS Trigger Service provides the video trigger service for digital video monitoring systems and manages the video recording function of multiple Streaming Servers to ensure the reliability and stability of large volume and long-term video storage systems.

Trigger Mechanism

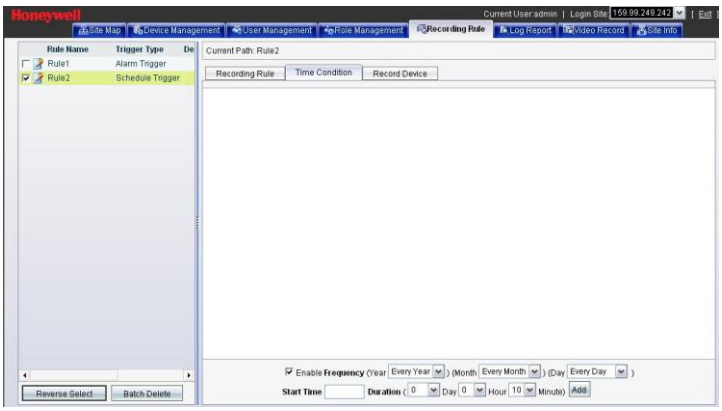
HUS-SWP-32S Server is configured with video storage rules, including planned trigger and alarm trigger. When Trigger Service starts, it is configured with either a planned trigger or alarm trigger from HUS-SWP-32S Server, and deals with them respectively, as shown in the following screenshot.

Figure 7-1 Video Recording Rule



At the preconfigured time for a video trigger, the Video Trigger Service sends a storage command to the NVR service which takes responsibility for controlling related devices for the specified time duration. The following screenshot displays the trigger time and the lasting time of recording that are defined by one planned trigger rule.

Figure 7-2 Planned Trigger

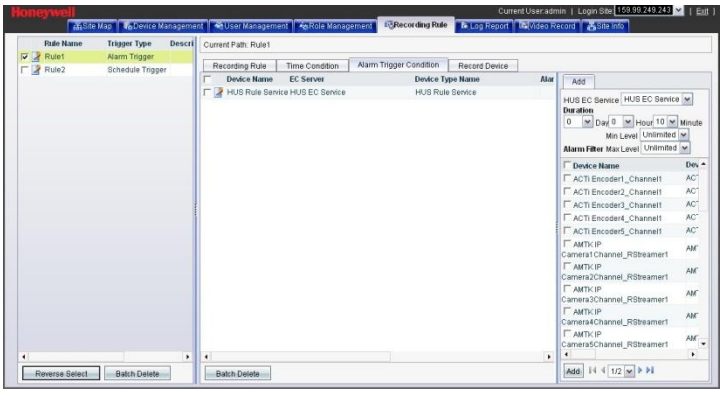


When an alarm triggers a video recording, Video Trigger Service first subscribes the configured alarms or events from Event Control Service. When EC Service receives the alarm, it sends the subscribed alarm to Video Trigger Service, and Video Trigger Service decides whether video storage is needed according to the specific configuration information of the alarm trigger rule. When the video must be stored, Video Trigger Service sends the storage command to the NVR service which controls the corresponding storage device to trigger video recording of alarms for the specified time duration.

The following screenshot displays the alarm settings for one alarm trigger rule. When the selected alarms occur, video recording will be triggered. The lasting time setting of the recording is 10 minutes. (Note that

the first channel of alarm input and alarm restore is unselected, so the two alarms do not trigger recording when they occur.)

Figure 7-3 The Rule of Alarm Trigger



When the Video Trigger Service is running, if user add, modify or delete one video recording rule in HUS-SWP-32S Server, the Video Trigger Service can update the information automatically and dynamically, and adjust the corresponding recording rule in time.

8 Database Management Tool

The Database Management Tool is used to maintain the database of HUS-SWP-32S Server, providing the functions of database backup, restore, cleanup of old data, and so on, in order to optimize and manage the database.

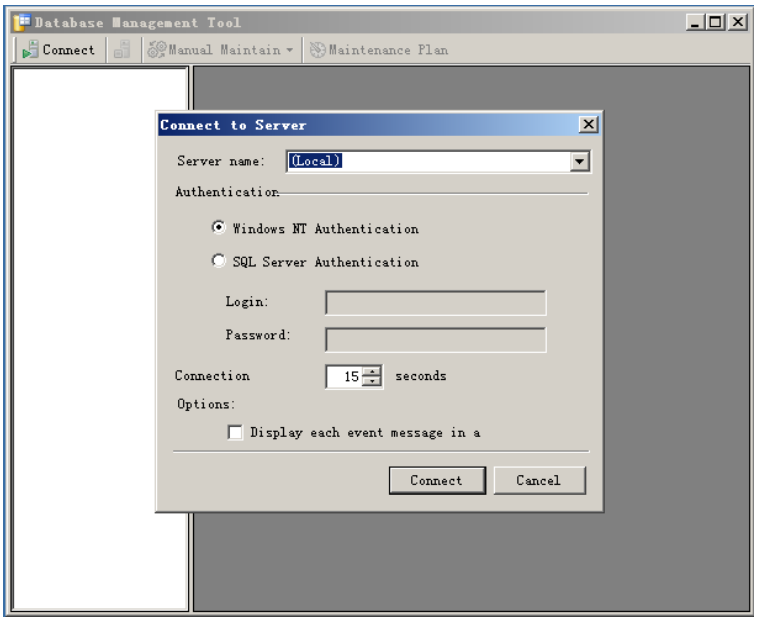
The major functions of the Database Management Tool are backing up of the database, restoring the database, and cleaning up the database.

Connecting to Server

Start the Database Management Tool, and then click the button 

on the toolbar. Select a server name and authentication method in the pop-up window, and click **Connect**.

Figure 9-1 Connecting to DataBase Server

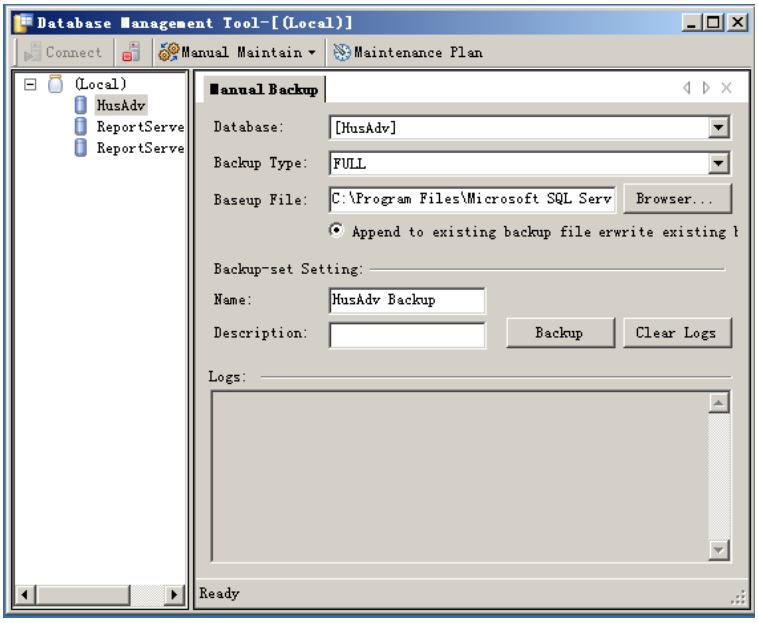


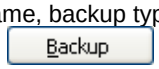
Backing up Database

After connecting to the server, click the button 

on the toolbar, select “Backup” from the drop-down list, which opens the following window.

Figure 9-2 Database Backup



Choose the database name, backup type, and the path for saving the backup file in the preceding window, and then click the button 

to backup the database.

Instructions for backup type:

1. Complete backup: Back up the whole database, including all data in the database.
2. Differential Backup: Back up the data that is in the current database but different from the last complete backup.
3. Transaction Log: Only back up the transaction logs in the current database.

Instructions for other options:

1. Attach to the backup files: if the backup file already exists, add the backup data to the original file. If there is no backup file, create a new backup file.
2. Overwrite the backup file: if the backup file already exists, the new backup file will replace it; if not, this file becomes the new one.

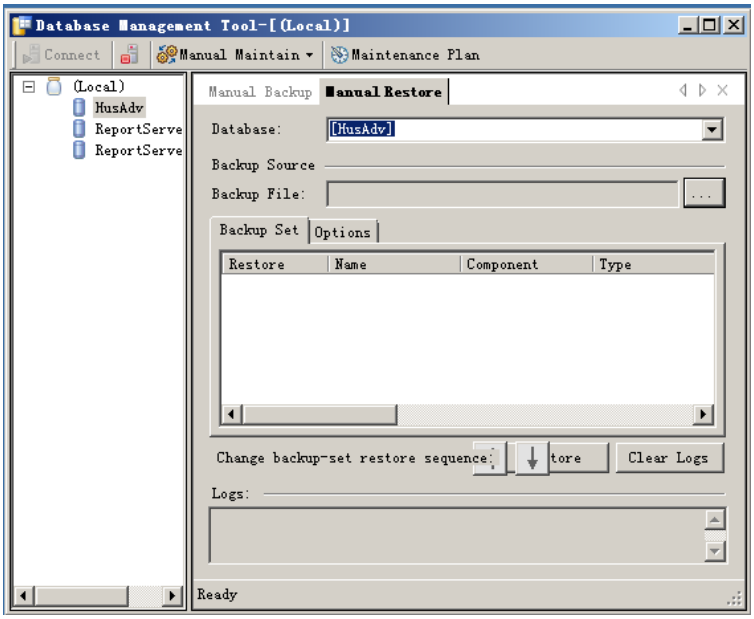
The database name in this system is “HusAdv”. Be sure to choose the right database when backing up or restoring the database. Use the default name “HusAdv” when backing up database, so as to avoid operation failure when restoring the database.

Restoring Database

After connecting to the server, click the button 

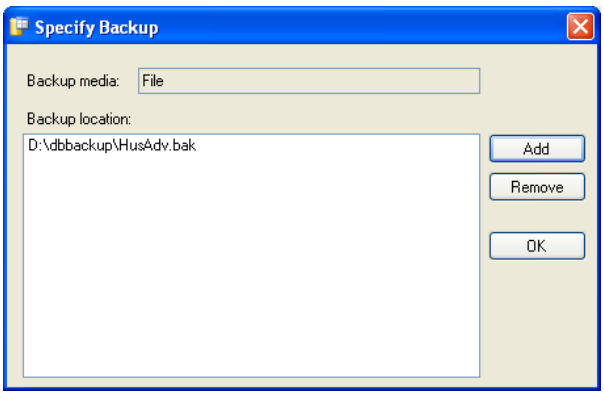
on the toolbar, select “Restore” from the drop-down list, and the following window opens.

Figure 9-3 Restoring Database



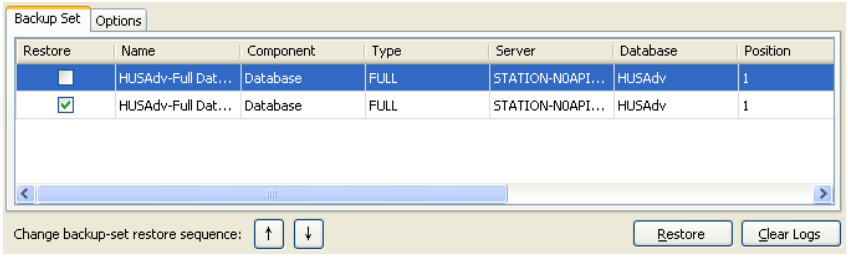
Choose the database to be restored or enter a new database name, and then click the button  to add a backup file in the pop-up window as follows

Figure 9-4 Specifying a Backup File



Add one or more backup files, and click **OK**. On the “Backup Set” page, you can see the backup sets in the current backup file.

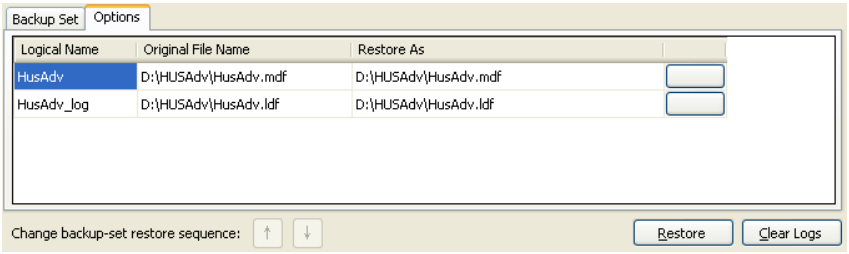
Figure 9-5 Selecting Backup Sets



Select the backup set to be restored in the “**Backup Set**” list, and then click the button  to restore it.

User can select another path for saving the database file in the “Option” page as follows.

Figure 9-6 Changing the Path of Database File

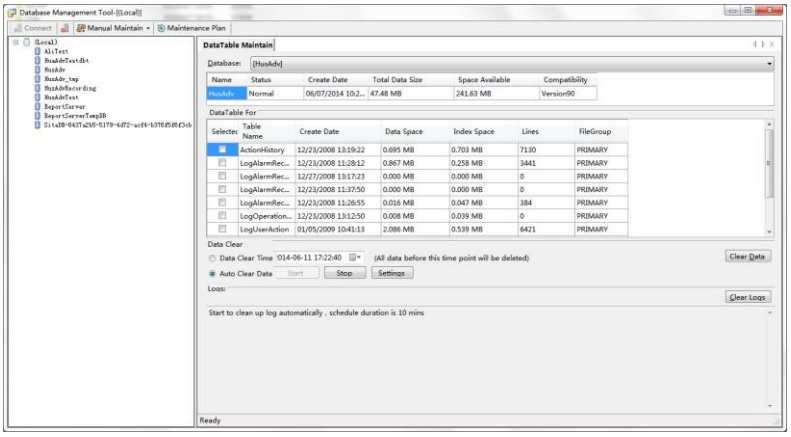


If there are more than one backup set , especially when the backup set includes complete backup, differential backup, and transaction backup, make sure the restoring sequence is: the last complete backup → some differential backups after the complete backup → the transaction log backup and ending transaction log backup after the differential backup.

Data Table Maintenance

After connecting to the server, click the button Manual Maintain on the toolbar, then select “DataTable Maintenance” from the drop-down list, and the following window opens.

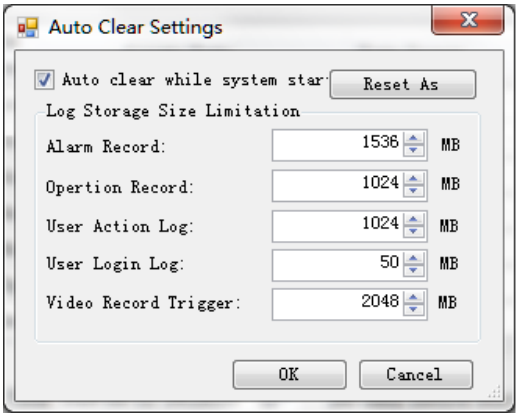
Figure 9-7 Data Table Maintenance



The Data Table Maintenance function only supports cleaning up of the SQL Server of Data Management Center on this server.

- Select “Data Clear Time” and configure the time in the drop-down list, click Clear Data to clear the data.
- Select “Auto Clear Data” and click Start to clear data automatically. Click Settings and the following window is displayed:

Figure 8-8 Auto Clear Settings



Users can set the custom properties.

- Click Clear Logs to clear the logs before the time point.

Notes: **Maintenance Plan** is unavailable on HUS-SWP-32S series production**.**

Before clearing the data, make sure you have backed up the data, as the data cannot be restored after the cleanup.

9 Configuring HUS NVR Services

This chapter describes how to configure HUS-NVR Service in Management Tool.

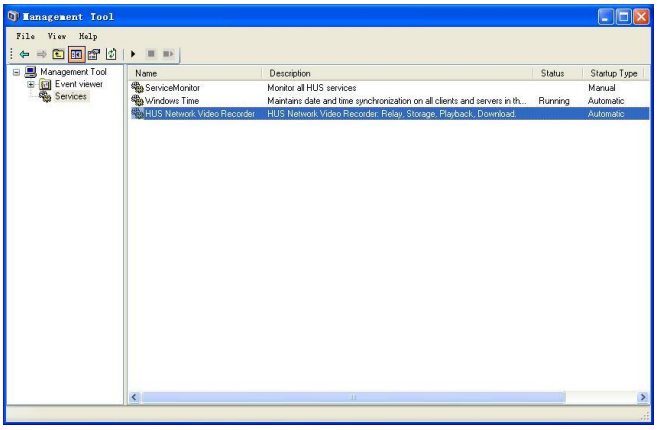
HUS-SWP-32S IP Security Integration Platform includes HUS-NVR Service. Management

Tool can start its service and the real-time communication and monitoring services of HUS-SWP-32S Server.

Configuring NVR Service

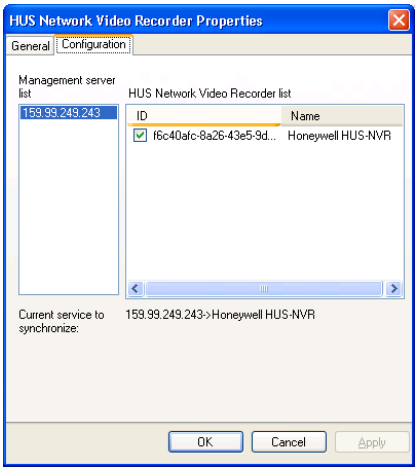
In the main window of “Management Tool”, as shown in the following screenshot, expand the tree items **Management Tool→Services** in the left pane.

Figure 10-1 Management Tool – Services



Double click “HUS Network Video Recorder”. Click the “Configuration” tab in the open “HUS Streaming Server Properties” dialog box.

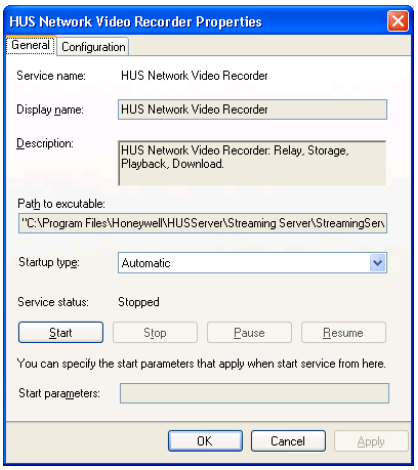
Figure 10-2 HUS NVR Properties – Properties



Select HUS-SWP-32S Server that you want to synchronize, and select the corresponding HUS NVR Service names in the HUS NVR list, so as to connect the HUS-NVR Service with the HUS-SWP-32S deployed by the Server.

Click the “General” tab again, and start the HUS-NVR Service.

Figure 10-3 HUS Streaming Server Properties – General



On the “General” page, click **Start**. When the service status turns to “Started”, the Streaming Service is started successfully.

The state information and monitoring interface of Streaming Service is automatically displayed after it is started successfully.

HUS NVR Service Function

Relay

HUS-NVR Service can relay the real-time streaming to the client.

A typical application process of relaying the streaming is described as follows:

Firstly, HUS Client sends a request command to HUS-NVR Service for a real-time streaming. After it receives and analyzes this command, it connects the corresponding front-end device links, and requests for the real-time streaming.

If the preceding two steps perform successfully, then the streaming link between HUS Client and HUS-NVR Service and the link between HUS-NVR Service and the front-end device are connected, which forms a one-way real-time streaming circle. Thus, the transmitting function is implemented.

Storage

HUS-NVR Service can store the real-time streaming for a certain period of time when it receives the storage command from Trigger Service of HUS-SWP-32S.

A typical application process of storage is described as follows (take “schedule trigger” as example):

Firstly, Trigger Service of HUS-SWP-32S gets the “trigger schedule” configured in the Server. If the trigger condition is satisfied, Trigger Service sends a request command to HUS-NVR Service, indicating that the real-time streaming of a certain channel will be stored within the specified time period.

When HUS-NVR Service receives and analyzes the command, it links to the corresponding front-end device for the real-time streaming.

If the preceding two steps work successfully, then the streaming link between HUS-NVR Service and the front-end device is connected, and HUS-NVR Service starts storing the streaming into the disk and will stop the storage until the specified end time.

In practical situation, large amounts of video files are generated, and maintaining the video file database becomes one of the most important works after the system is put into operation.

Disk Maintenance

Maintainers should pay attention to the following parameters:

1. The total capacity of disk: C (unit: GB)
2. The remaining capacity: R (unit: GB)
3. The total number of device links supported : N
4. The maximum bit rate of each channel: rate (unit: Mbps)

5. The number of days for storage: D (unit: day)

The calculation of disk storage space must meet this condition: the remaining available disk space>the required space for storing video files

(C*1024-512)>D*3600*24*N*rate/8

That is C>10.55D*N*rate+0.5

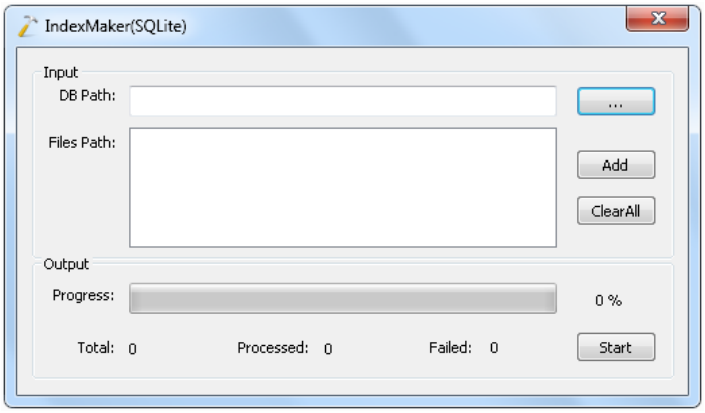
512 (MB) refers to the reserved disk space.

Index Recovery Tool

IndexMaker(SQLite) is a recovery tool for video index files provided by HUS-NVR Service, which you can find it in the installation directory.

When HUS-NVR Service shuts down abnormally (caused by abnormal program or power-off), damage might be caused to index files. So before restarting HUS-NVR Service, you must recover the index files, otherwise it may cause error.

Figure 10-4 Index Recovery Tool



To recover the index files, follow these steps:

1. Click "**...**" and specify the DB path (the path where the index files generated by the HUS-NVR are saved).
2. Click **Add** and specify the storage path (the corresponding disk list; refer to the disk list).
3. Click **Start**. Once it is complete, the index files will have been successfully recovered.

Playback

HUS-NVR Service supports video playback in HUS Client.

A typical application process of video playback is described as follows.

Firstly, HUS Client sends a request command to HUS-NVR Service designating for a certain history video with the specified start time and end time.

After HUS-NVR Service receives and analyzes the command, it finds the file list that matches the condition in local video database, and locates the correct start and end time.

If the preceding two steps work successfully, then the streaming link between HUS-NVR Service and HUS Client is connected, and HUS-NVR Service begins to distribute the history streaming to HUS Client to play it.

Downloading Videos

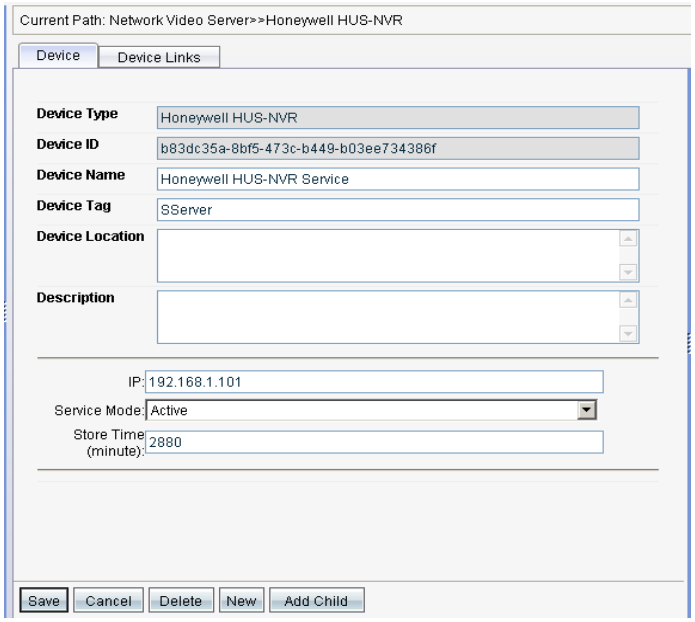
This function is similar to the playback function. The only difference is that the history streaming will not be played but storing it in the local hard disk of the HUS Client.

Dynamic Synchronization

When the settings of Streaming Service (HUS-NVR Service) are changed in the Management Service, HUS-NVR Service automatically synchronizes with it and applies the new settings. The settings include:

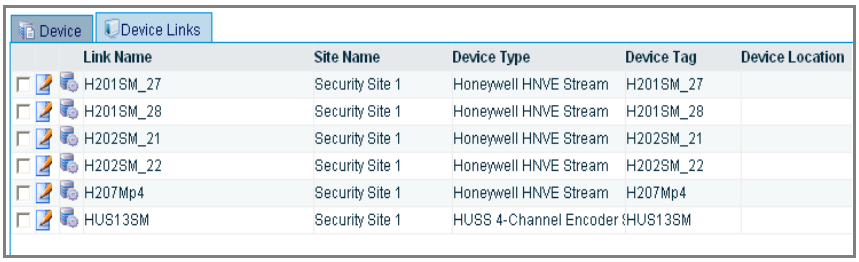
1. The configuration information of Streaming Service, including device name, tag, location, description, device parameter, etc., as shown in the following figure.

Figure 10-5 The Parameters of Streaming Service



2. The configuration information of device links supported by the HUS-NVR Service, including adding, deleting, and modifying the information of a link, as shown in the following figure.

Figure 10-6 Device Links of HUS-NVR



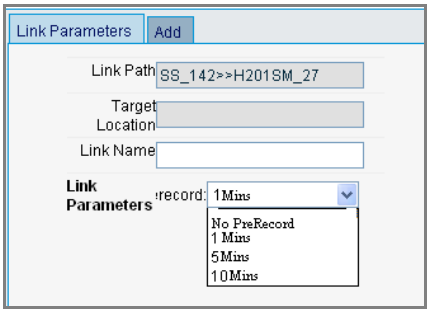
Prerecord

HUS-NVR Service can cache the real-time streaming for a certain time (less than or equals to 10 minutes). When there is an event or alarm triggering recording, prerecording may help tracing the situation before the event or alarm occurs.

To configure the prerecording settings, follow these steps:

1. Log in HUS-SWP-32S Server.
2. Navigate to **Device→Device Management**, and select the target NVR in the left device tree. In the “Device Links” tab, select the target link and it displays the “Link Parameters” tab in the right pane.
3. Specify the prerecording time (available options: 1, 5, and 10 minutes), as shown in the following figure:

Figure 10-7 Prerecording Time (Minutes)



Cycle Overwrite

Cycle overwrite is one of the video storage strategies of HUS-NVR Service. The capacity of each disk is limited (see “*Disk Maintenance*” section).

HUS-NVR Service supports the cycle overwrites in the following two situations:

- Delete the videos older than N days regularly. If the disk can store the videos for N days, HUS-NVR Service will delete the video files older than N days regularly according to the required video storage space after a certain capacity is filled.
- Delete the oldest videos when the disk capacity is full, and the related parameters can be specified in the “streamingserver.xml” file (it is in the installation directory of HUS-NVR Service):
- The default maximum capacity of each file block is *200MB*.

  It can be configured by “<PREF NAME="storage_video_chip_size" TYPE="UInt32" >200</PREF>” in the “streamingserver.xml” file.
- When the remaining space of the disk is less than *1GB (default)*, you cannot create new files on the disk.

  It can be configured by “<PREF NAME="storage_disk_create_empty_remain" TYPE="UInt32" >1024</PREF>” in the “streamingserver.xml” file;
- When the remaining space of the disk is less than *512MB (default)*, data cannot be written to the disk.

  It can be configured by “<PREF NAME="storage_disk_write_empty_remain" TYPE="UInt32" >512</PREF>” in the “streamingserver.xml” file.
- When the remaining space of disk is less than *2GB (default)*, HUS-NVR Service starts to search the oldest videos. When more than *1GB (default)* of videos is searched, it stops searching and delete all these videos.

  The remaining space can be configured by “<PREF NAME="storage_cycle_overwirte_remain_size" TYPE="UInt32" >2048</PREF>” in the “treamingserver.xml” file.

  The file size of searched videos can be configure by “<PREF NAME="storage_cycle_overwirte_size" TYPE="UInt32" >1024</PREF>” in the “streamingserver.xml” file.

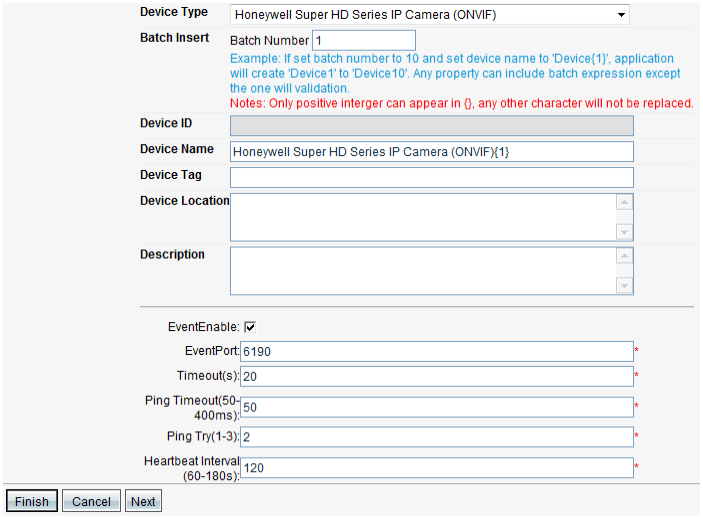
10 Appendix

Adding IP Video Front End Devices

Honeywell Super HD Series IP Camera (ONVIF)

Click “IP Video Front End Devices” in the “Device Tree”, and click **New**. The following interface is displayed:

Figure 0-1 Adding Honeywell Super HD Series IP Camera (ONVIF)



Select “Honeywell Super HD Series IP Camera (ONVIF)” in “Device Type”, set properties and device parameters for the new device. Besides general parameters, there are following device parameters:

1. **EventEnable:** Enable event function to receive alarms.

2. **EventPort:** The Socket service port in EC for the Adaptor, to receive the event reports from the devices connected with the adaptor. Make sure this port in EC cannot be occupied by other programs or devices, or it cannot receive alarms and ON/OFF line status. The default value is 6150.

3. **Timeout (s):** The interval between two heart beat packets. (10 seconds by default.) Adjust this parameter if the network environment is poor or too many devices are connected. The formula is: Timeout period=number of cameras× (number of alarms per second of a camera×2+1)/20.

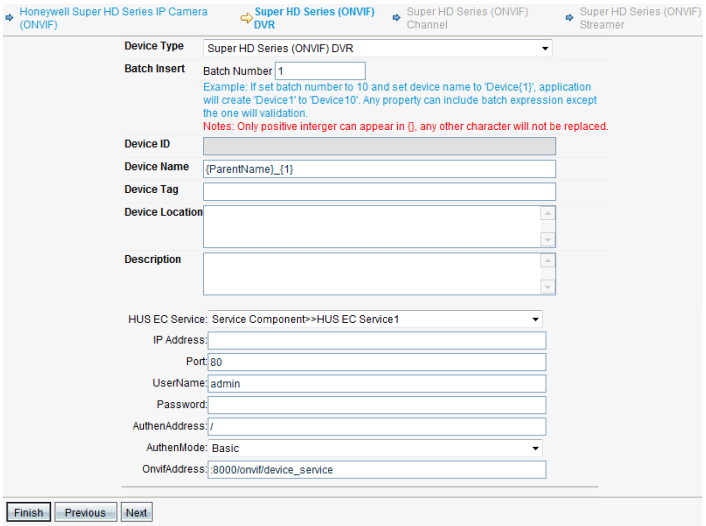
4. **PING Timeout(50-400ms):** Set the interval time of sending and receiving the PING. The device is regarded as disconnected if it is timeout.

5. **PING Try(1-3):** Set the trial times of the PING test.

6. **Heartbeat Interval(60-180s):** Set the interval time between two heartbeats.

Click **Next**, and the following interface is displayed:

Figure 0-2 Adding Super HD Series (ONVIF) DVR

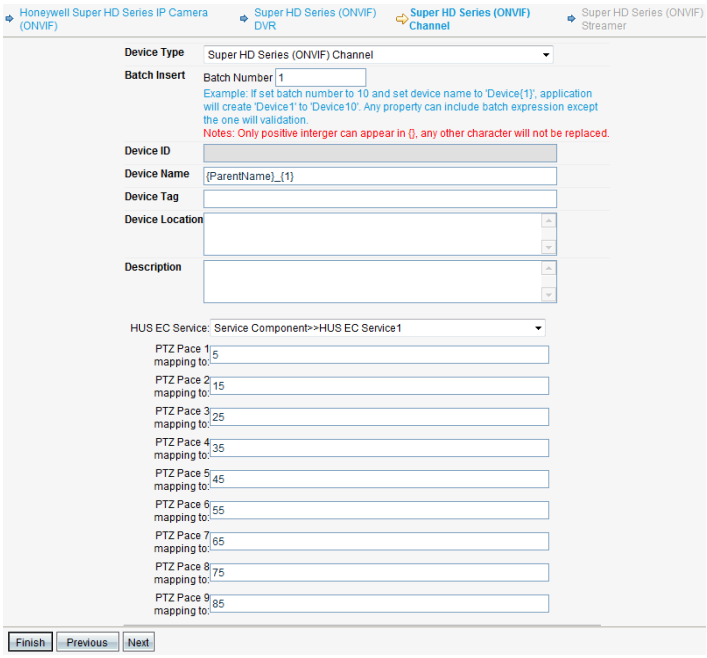


Set properties and device parameters for the new device. Besides general parameters, there are following device parameters:

1. **HUS EC Service:** Select Service Component- Event & Control Service.
2. **IP Address:** Enter the Enter the IP Address of the device.
3. **Port:** Set the port for communication and configuration.
4. **UserName:** “admin” by default.
5. **Password:** “1234” by default.
6. **AuthenAddress:** HTTP Address to log on. Ask the vendor for details.
7. **AuthenMode:** HTTP authentication mode. Ask the vendor for details.
8. **ONVIF Address:** ONVIF address. Ask the vendor for details.

Click **Next**, and the following interface is displayed:

Figure 0-3 Adding Super HD Series (ONVIF) Channel

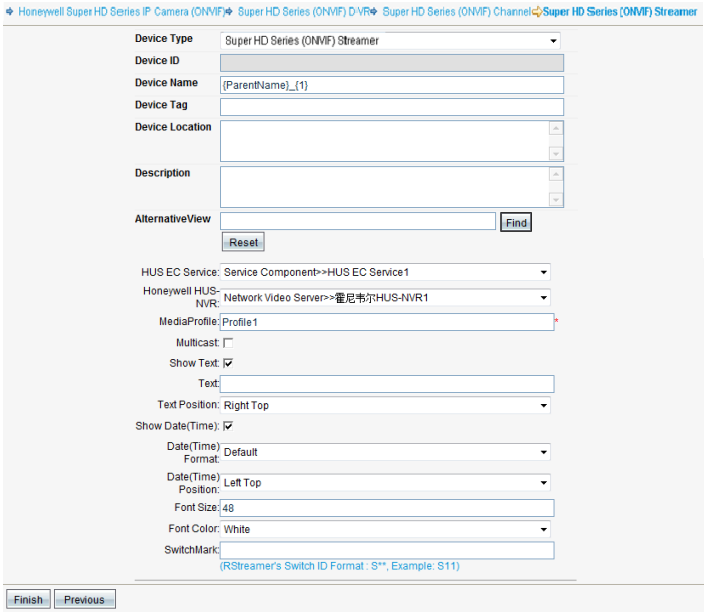


1. **HUS EC Service:** Select Service Component- Event & Control Service.

2. **PTZ Pace X (1-9) mapping to:** PTZ pace X (1-9) can be customized. Each PTZ pace mappings to one front-end PTZ pace. For Example, PTZ Pace 9 mappings to PTZ85; PTZ Pace 1 mappings to PTZ5. Customized PTZ pace provides more accurate positioning.

Click **Next**, and the following interface is displayed:

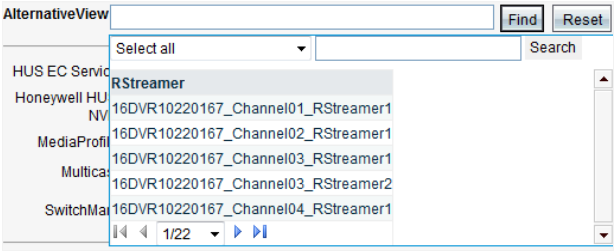
Figure 0-68 Adding Super HD Series (ONVIF) Streamer



Set properties and device parameters, there are following device parameters:

1. Alternative View: Click **Find** to select alternative stream when the current running stream cannot work:

Figure 0-69 Alternative View



Click **Reset** to clear selected streams.

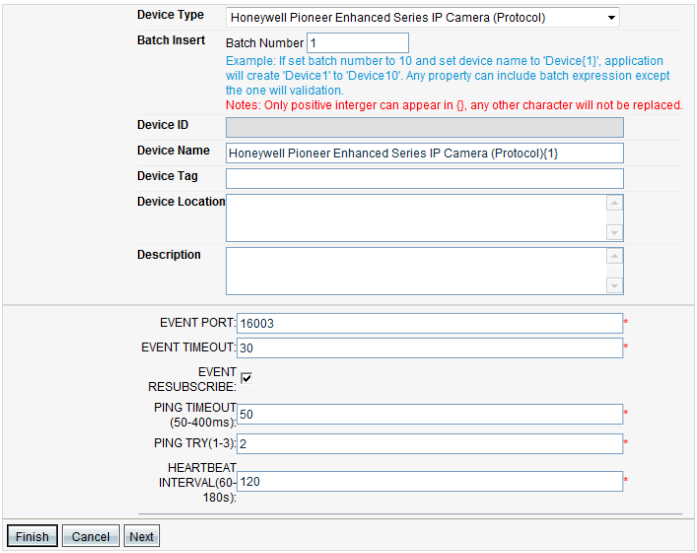
2. **HUS EC Service:** Select Service Component- Event & Control Service.
3. **Honeywell HUS-NVR:** Select which HUS-NVR to store the video.
4. **MediaProfile:** Select from quality_h264, mobile_h264, balanced_h264, bandwidth_h264, quality_jpeg, mobile_jpeg or balanced_jpeg. Bandwidth_jpeg by default.
5. **Multicast:** Select it to enable multicast (Multicast address must be set on the device IE in advance.).
6. **Show Text:** Select this item to show text.
7. **Text:** Enter the text to be showed.
8. **Text Position:** Select the text position.
9. **ShowDate (Time):** Select this item to show date (time).
10. **Date (Time) Format:** Select the date (time) format.
11. **Date (Time) Position:** Select the date (time) position.
12. **Font Size:** Set the font size.
13. **Font Color:** Select the font color.
14. **Switch ID:** Not supported in this edition of HUS application.

Click **Finish** to save the settings. When the saving completes, the new device is displayed in the left “Device Tree”.

Honeywell Pioneer Enhanced Series IP Camera (Protocol)

Click “IP Video Front End Devices” in the “Device Tree”, and click **New**. The following interface is displayed:

Figure 0-4 Adding Honeywell Pioneer Enhanced Series IP Camera (Protocol)

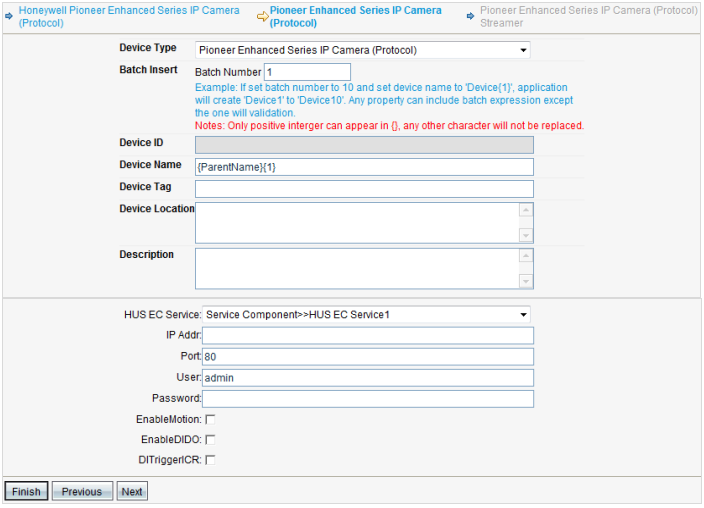


Select “Honeywell Pioneer Enhanced Series IP Camera (Protocol)” in “Device Type”. Set properties and device parameters for the new device. Besides general parameters, there are following device parameters:

1. **Event Port:** From the listed EC services, the user should appoint a specific one to receive alarm information.
2. **Event Timeout:** The interval between two heart beat packets.
3. **Event Resubscribe:** Enable this item will resubscribe alarm when the device is reconnected. It is recommended to enable this item for the first using. And disable it when the system has run stably.
4. **PING Timeout(50-400ms):** Set the interval time of sending and receiving the PING. The device is regarded as disconnected if it is timeout.
5. **PING Try(1-3):** Set the trial times of the PING test.
6. **Heartbeat Interval(60-180s):** Set the interval time between two heartbeats.

Click **Next**, and the following interface is displayed:

Figure 0-5 Adding Pioneer Enhanced Series IP Camera (Protocol)



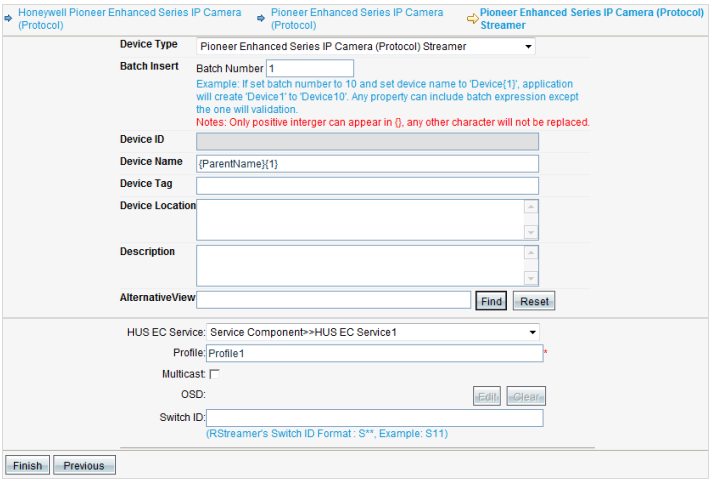
Set properties and device parameters for the new device. Besides general parameters, there are following device parameters:

1. **HUS EC Service:** Select Service Component- Event & Control Service.
2. **IP Addr:** Enter the IP address of the device.
3. **Port:** “80” as default.
4. **User:** “admin” by default.
5. **Password:** Null by default.
6. **EnableMotion：** Enable this item to send the motion alarm to the HUS system.

7. **Enable DIDO:** Enable this item to send the external alarm–in to the HUS system.
8. **DITriggerICR:** Enable this item to send the external alarm–out to the HUS system.

Click **Next**, and the following interface is displayed:

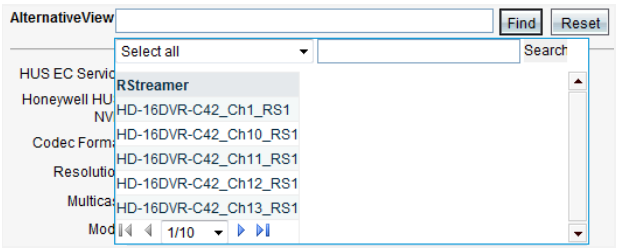
Figure 0-127 Adding Pioneer Enhanced Series IP Camera (Protocol) Stream



Select “Pioneer Enhanced Series IP Camera (Protocol) Stream” in “Device Type”, set properties and device parameters for the new device. Besides general parameters, there are following device parameters:

1. Alternative View: Click **Find** to select alternative stream when the current running stream cannot work :

Figure 0-128 Alternative View



Click **Reset** to clear selected streams.

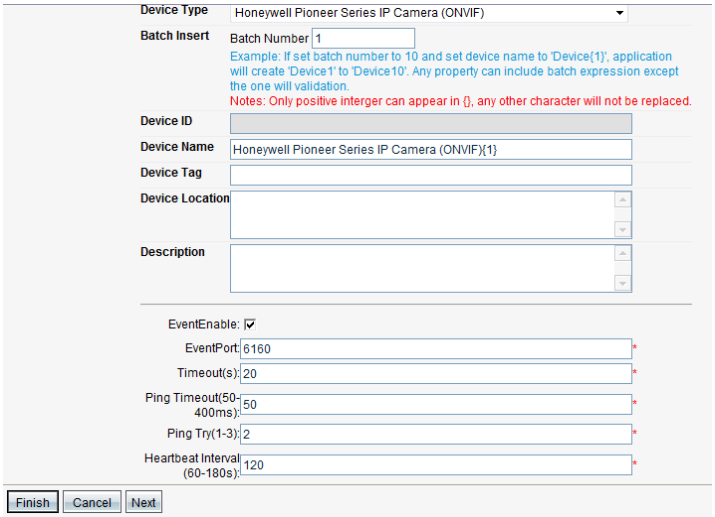
2. **HUS EC Service:** Select Service Component- Event & Control Service.
3. **Profile:** Select which stream to be played. Profile1, Profile2, Profile3…by default.
4. **Multicast:** Select it to enable multicast (Multicast address must be set on the device IE in advance.).
5. **OSD:** For the details of editing OSD.
6. **Switch ID:** Not supported in this edition of HUS application

Click Finish to save the settings. When the saving completes, the new device is displayed in the left “Device Tree”.

Honeywell Pioneer Series IP Camera (ONVIF)

Click “IP Video Front End Devices” in the “Device Tree”, and click **New**. The following interface is displayed:

Figure 0-6 Adding Honeywell Pioneer Series IP Camera (ONVIF)



Select “Honeywell Pioneer Series IP Camera (ONVIF)” in “Device Type”, set properties and device parameters for the new device. Besides general parameters, there are following device parameters:

1. **EventEnable:** Enable event function to receive alarms.

2. **EventPort:** The Socket service port in EC for the Adaptor, to receive the event reports from the devices connected with the adaptor. Make sure this port in EC cannot be occupied by other programs or devices, or it cannot receive alarms and ON/OFF line status. The default value is 6150.

3. **Timeout (s):** The interval between two heart beat packets. (10 seconds by default.) Adjust this parameter if the network environment is poor or too many devices are connected. The formula is: Timeout period=number of cameras× (number of alarms per second of a camera×2+1)/20.

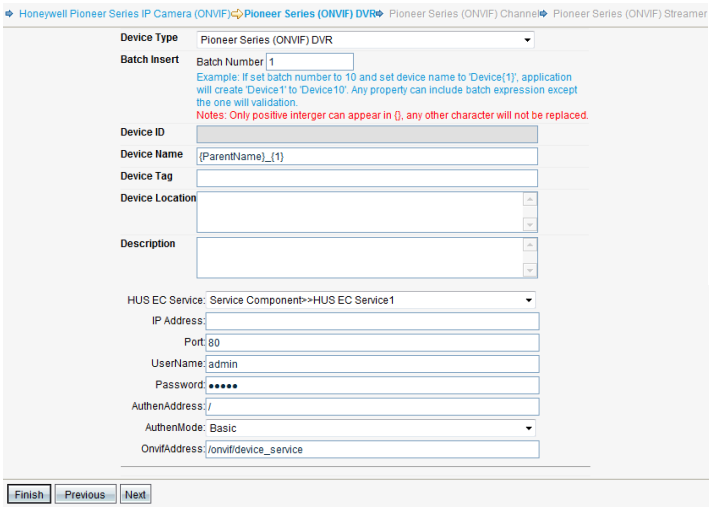
4. **PING Timeout(50-400ms):** Set the interval time of sending and receiving the PING. The device is regarded as disconnected if it is timeout.

5. **PING Try(1-3):** Set the trial times of the PING test.

6. **Heartbeat Interval(60-180s):** Set the interval time between two heartbeats.

Click **Next**, and the following interface is displayed:

Figure 0-7 Adding Pioneer Series (ONVIF) DVR



Set properties and device parameters for the new device. Besides general parameters, there are following device parameters:

1. **HUS EC Service:** Select Service Component- Event & Control Service.

2. **IP Address:** Enter the Enter the IP Address of the device.

3. **Port:** Set the port for communication and configuration.

4. **UserName:** “admin” by default.

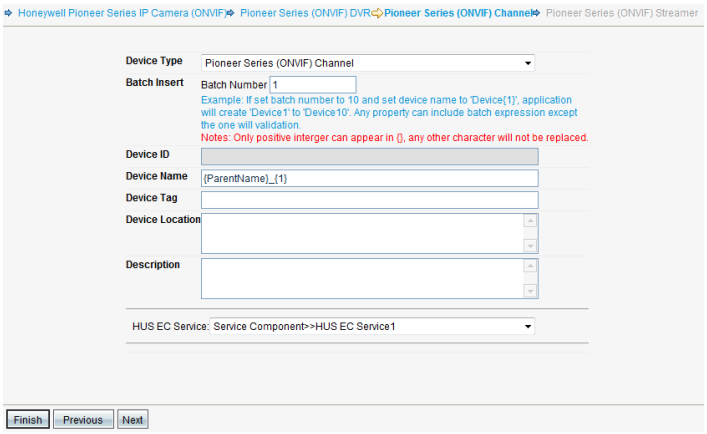
5. **Password:** “1234” by default.

6. **AuthenAddress:** HTTP Address to log on. Ask the vendor for details.

7. **AuthenMode:** HTTP authentication mode. Ask the vendor for details.
8. **ONVIF Address:** ONVIF address. Ask the vendor for details.

Click **Next**, and the following interface is displayed:

Figure 0-8 Adding Pioneer Series (ONVIF) Channel

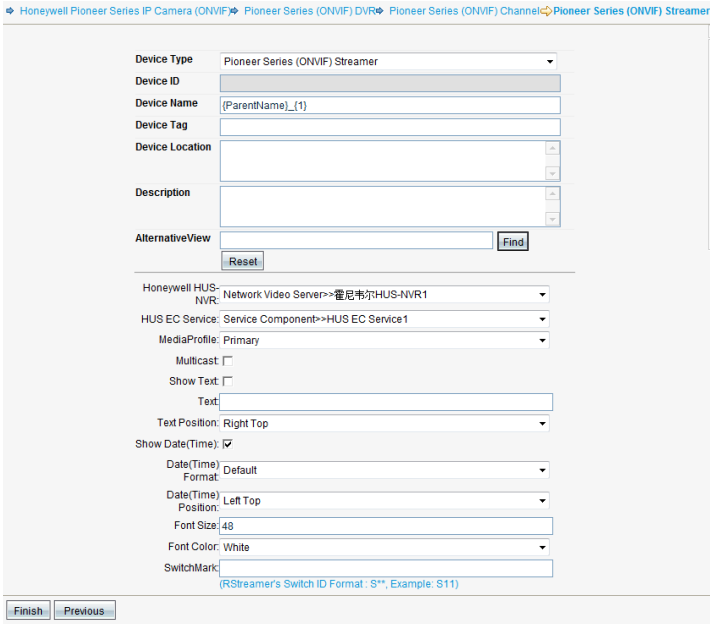


Set properties and device parameters for the new device. Besides general parameters, there are following device parameters:

1. **HUS EC Service:** Select Service Component- Event & Control Service.

Click **Next**, and the following interface is displayed:

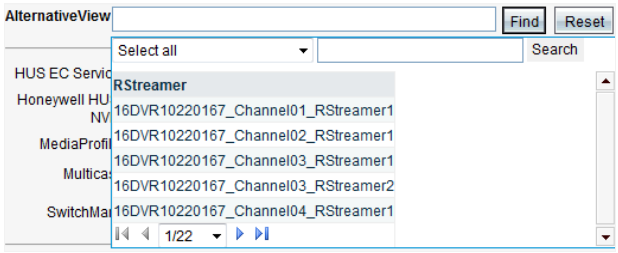
Figure 0-9 Adding Pioneer Series (ONVIF) Streamer



Set properties and device parameters, there are following device parameters:

1. Alternative View: Click **Find** to select alternative stream when the current running stream cannot work:

Figure 0-10 Alternative View



Click **Reset** to clear selected streams.

2. **HUS EC Service:** Select Service Component- Event & Control Service.
3. **Honeywell HUS-NVR:** Select which HUS-NVR to store the video.

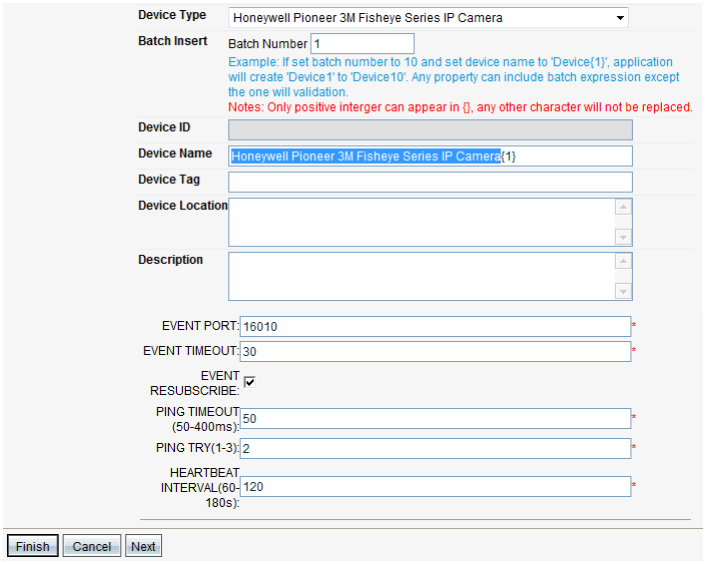
4. **MediaProfile:** Select from quality_h264, mobile_h264, balanced_h264, bandwidth_h264, quality_jpeg, mobile_jpeg or balanced_jpeg. Bandwidth_jpeg by default.
5. **Multicast:** Select it to enable multicast (Multicast address must be set on the device IE in advance.).
6. **Show Text:** Select this item to show text.
7. **Text:** Enter the text to be showed.
8. **Text Position:** Select the text position.
9. **ShowDate (Time):** Select this item to show date (time).
10. **Date (Time) Format:** Select the date (time) format.
11. **Date (Time) Position:** Select the date (time) position.
12. **Font Size:** Set the font size.
13. **Font Color:** Select the font color.
14. **Switch ID:** Not supported in this edition of HUS application.

Click **Finish** to save the settings. When the saving completes, the new device is displayed in the left "Device Tree".

Honeywell Pioneer 3M Fisheye Series IP Camera

Click "IP Video Front End Devices" in the "Device Tree", and click **New**. The following interface is displayed:

Figure 0-11 Adding Honeywell Pioneer 3M Fisheye Series IP Camera

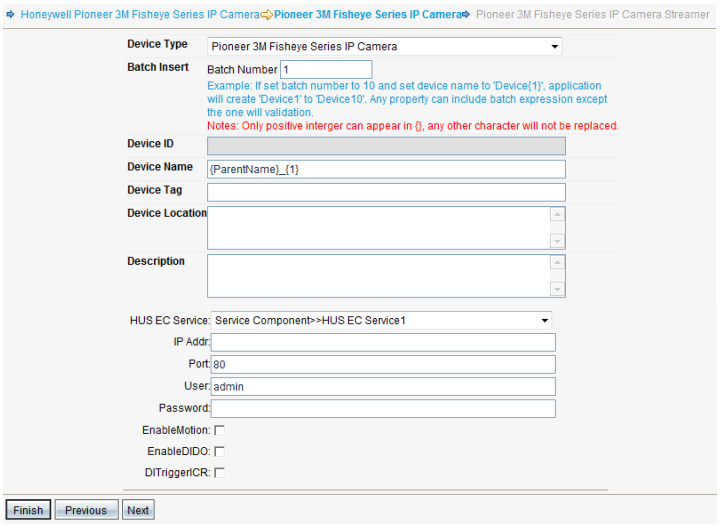


Select "Honeywell Pioneer 3M Fisheye Series IP Camera" in "Device Type". Set properties and device parameters for the new device. Besides general parameters, there are following device parameters:

1. **Event Port:** From the listed EC services, the user should appoint a specific one to receive alarm information.
2. **Event Timeout:** The interval between two heart beat packets.
3. **Event Resubscribe:** Enable this item will resubscribe alarm when the device is reconnected. It is recommended to enable this item for the first using. And disable it when the system has run stably.
4. **PING Timeout(50-400ms):** Set the interval time of sending and receiving the PING. The device is regarded as disconnected if it is timeout.
5. **PING Try(1-3):** Set the trial times of the PING test.
6. **Heartbeat Interval(60-180s):** Set the interval time between two heartbeats.

Click **Next**, and the following interface is displayed:

Figure 0-12 Adding Pioneer 3M Fisheye Series IP Camera

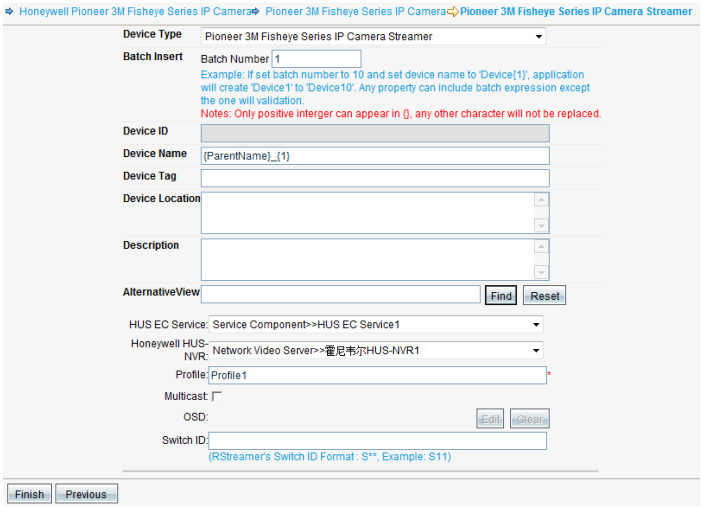


Set properties and device parameters for the new device. Besides general parameters, there are following device parameters:

1. **HUS EC Service:** Select Service Component- Event & Control Service.
2. **IP Addr:** Enter the IP address of the device.
3. **Port:** “80” as default.
4. **User:** “admin” by default.
5. **Password:** Null by default.
6. **EnableMotion：** Enable this item to send the motion alarm to the HUS system.
7. **Enable DIDO:** Enable this item to send the external alarm–in to the HUS system.
8. **DITriggerICR:** Enable this item to send the external alarm–out to the HUS system.

Click **Next**, and the following interface is displayed:

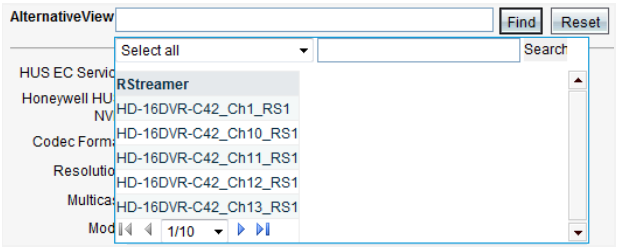
Figure 0-13 Adding Pioneer 3M Fisheye Series IP Camera Streamer



Select “Pioneer 3M Fisheye Series IP Camera Streamer” in “Device Type”, set properties and device parameters for the new device. Besides general parameters, there are following device parameters:

1. Alternative View: Click **Find** to select alternative stream when the current running stream cannot work :

Figure 0-14 Alternative View



Click **Reset** to clear selected streams.

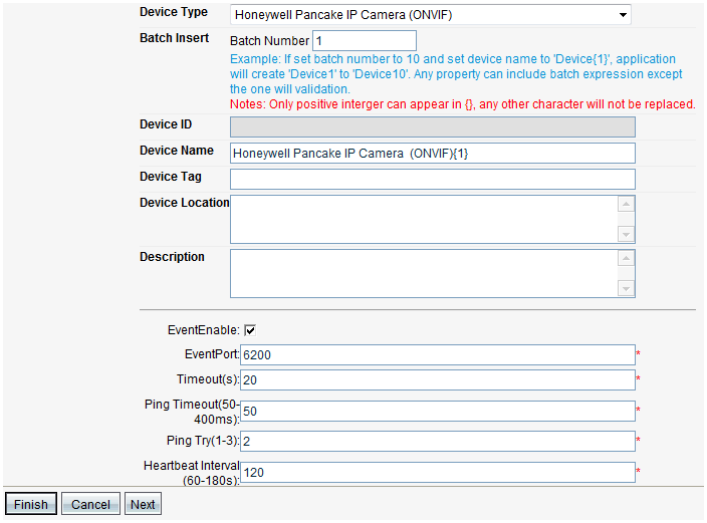
2. **HUS EC Service:** Select Service Component- Event & Control Service.
3. **Honeywell HUS-NVR:** Select which HUS-NVR to store the video.
4. **Profile:** Select which stream to be played. Profile1, Profile2, Profile3…by default.
5. **Multicast:** Select it to enable multicast (Multicast address must be set on the device IE in advance.).
6. **OSD:** For the details of editing OSD.
7. **Switch ID:** Not supported in this edition of HUS application

Click Finish to save the settings. When the saving completes, the new device is displayed in the left “Device Tree”.

Honeywell Pancake IP Camera (ONVIF)

Click “IP Video Front End Devices” in the “Device Tree”, and click **New**. The following interface is displayed:

Figure 0-15 Adding Honeywell Pancake IP Camera (ONVIF)



Select “Honeywell Pancake IP Camera (ONVIF)” in “Device Type”, set properties and device parameters for the new device. Besides general parameters, there are following device parameters:

1. **EventEnable:** Enable event function to receive alarms.

2. **EventPort:** The Socket service port in EC for the Adaptor, to receive the event reports from the devices connected with the adaptor. Make sure this port in EC cannot be occupied by other programs or devices, or it cannot receive alarms and ON/OFF line status. The default value is 6150.

3. **Timeout (s):** The interval between two heart beat packets. (10 seconds by default.) Adjust this parameter if the network environment is poor or too many devices are connected. The formula is: Timeout period=number of cameras× (number of alarms per second of a camera×2+1)/20.

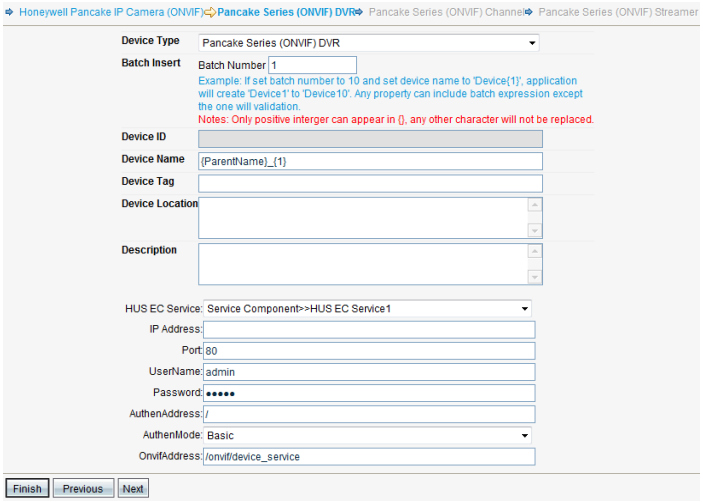
4. **PING Timeout(50-400ms):** Set the interval time of sending and receiving the PING. The device is regarded as disconnected if it is timeout.

5. **PING Try(1-3):** Set the trial times of the PING test.

6. **Heartbeat Interval(60-180s):** Set the interval time between two heartbeats.

Click **Next**, and the following interface is displayed:

Figure 0-16 Adding Pancake Series (ONVIF) DVR

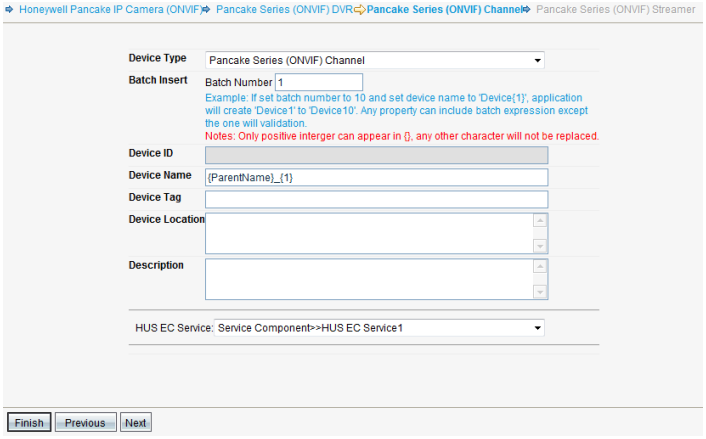


Set properties and device parameters for the new device. Besides general parameters, there are following device parameters:

1. **HUS EC Service:** Select Service Component- Event & Control Service.
2. **IP Address:** Enter the Enter the IP Address of the device.
3. **Port:** Set the port for communication and configuration.
4. **UserName:** “admin” by default.
5. **Password:** “1234” by default.
6. **AuthenAddress:** HTTP Address to log on. Ask the vendor for details.
7. **AuthenMode:** HTTP authentication mode. Ask the vendor for details.
8. **ONVIF Address:** ONVIF address. Ask the vendor for details.

Click **Next**, and the following interface is displayed:

Figure 0-17 Adding Pancake Series (ONVIF) Channel

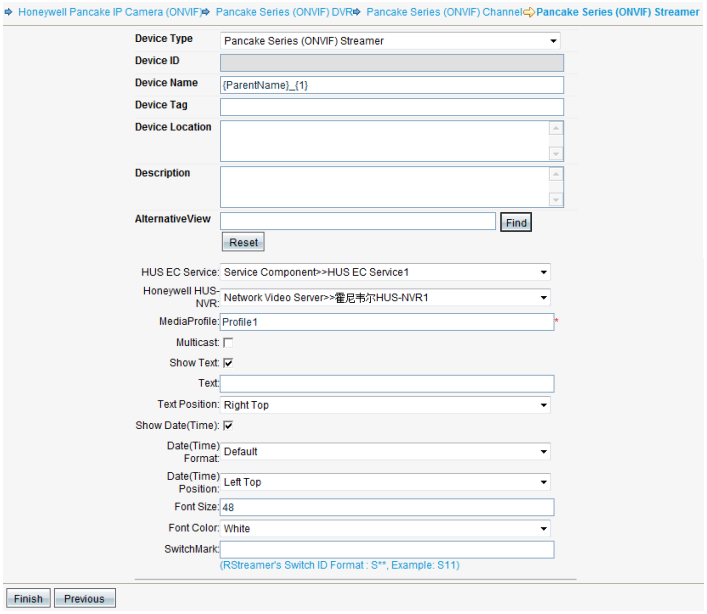


Set properties and device parameters for the new device. Besides general parameters, there are following device parameters:

1. **HUS EC Service:** Select Service Component- Event & Control Service.

Click **Next**, and the following interface is displayed:

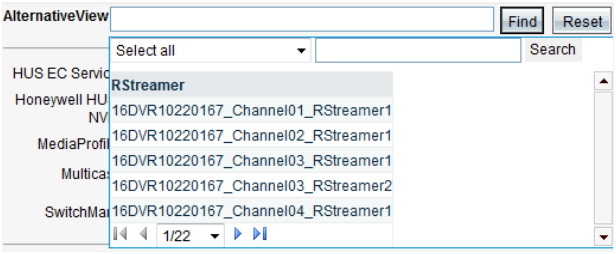
Figure 0-18 Adding Pancake Series (ONVIF) Streamer



Set properties and device parameters, there are following device parameters:

1. Alternative View: Click **Find** to select alternative stream when the current running stream cannot work:

Figure 0-19 Alternative View



Click **Reset** to clear selected streams.

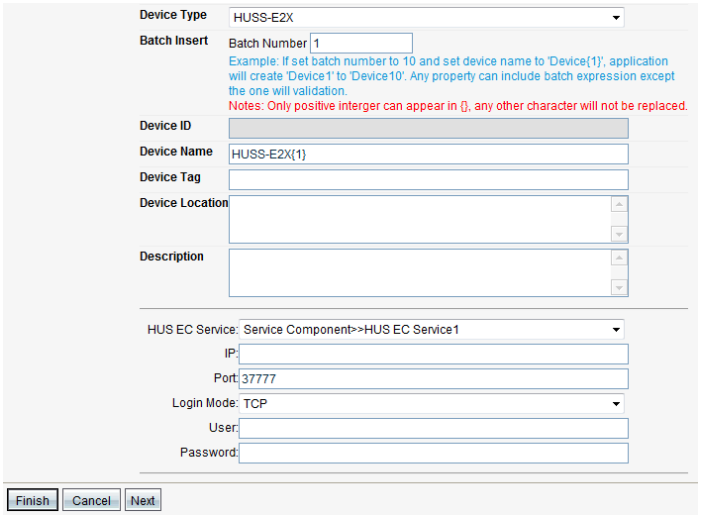
2. **HUS EC Service:** Select Service Component- Event & Control Service.
3. **Honeywell HUS-NVR:** Select which HUS-NVR to store the video.
4. **MediaProfile:** Select from quality_h264, mobile_h264, balanced_h264, bandwidth_h264, quality_jpeg, mobile_jpeg or balanced_jpeg. Bandwidth_jpeg by default.
5. **Multicast:** Select it to enable multicast (Multicast address must be set on the device IE in advance.).
6. **Show Text:** Select this item to show text.
7. **Text:** Enter the text to be showed.
8. **Text Position:** Select the text position.
9. **ShowDate (Time):** Select this item to show date (time).
10. **Date (Time) Format:** Select the date (time) format.
11. **Date (Time) Position:** Select the date (time) position.
12. **Font Size:** Set the font size.
13. **Font Color:** Select the font color.
14. **Switch ID:** Not supported in this edition of HUS application.

Click **Finish** to save the settings. When the saving completes, the new device is displayed in the left “Device Tree”.

HUSS-E2X

Click “IP Video Front End Devices” in the “Device Tree”, and click **New**. The following interface is displayed:

Figure 0-90 Adding HUSS-E2X

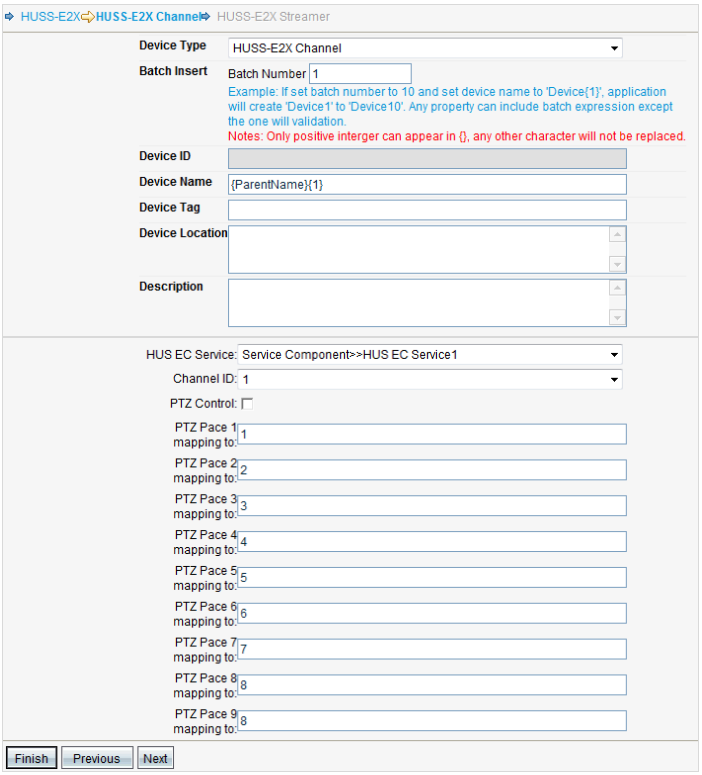


Select “HUSS-E2X” in “Device Type”, set properties and device parameters for the new device. Besides general parameters, there are following device parameters:

1. **HUS EC Service:** Select Service Component- Event & Control Service.
2. **IP:** Enter the IP address of the device.
3. **Port:** “37777” as default.
4. **Login Mode:** Select TCP or Multicast.
5. **User:** Enter the username for login.
6. **Password:** Enter the password for login.

Click **Next**, and the following interface is displayed:

Figure 0-91 Adding HUSS-E2X Channel



Set properties and device parameters for the new device. Besides general parameters, there are following device parameters:

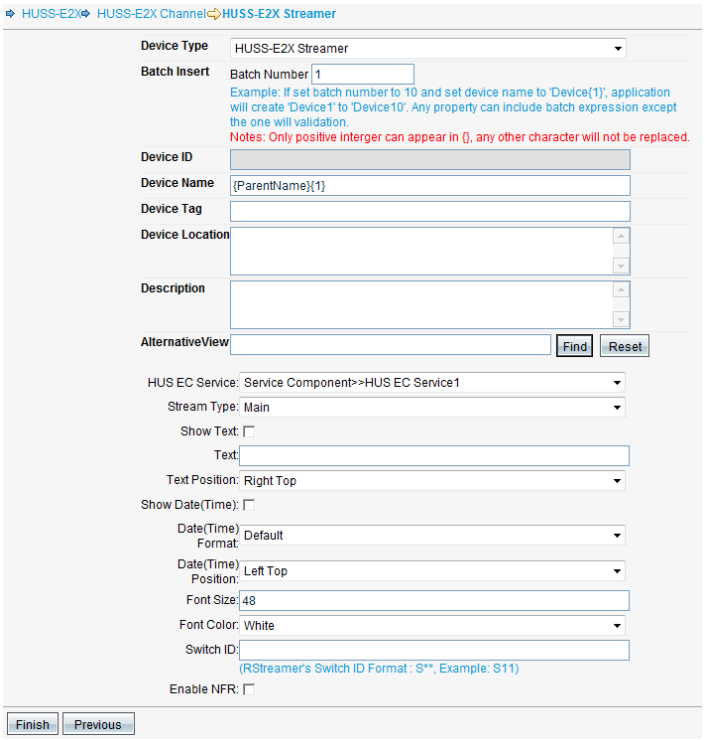
1. **HUS EC Service:** Select Service Component- Event & Control Service.
2. **Channel ID:** Select channel ID, from 1 to 2.

3. **PTZ Control:** Select it to enable the PTZ control of this channel. Make sure the device is connected to the analog camera.

4. **PTZ Pace X (1-9) mapping to:** PTZ pace X (1-9) can be customized. Each PTZ pace mappings to one front-end PTZ pace.

Click **Next**, and the following interface is displayed:

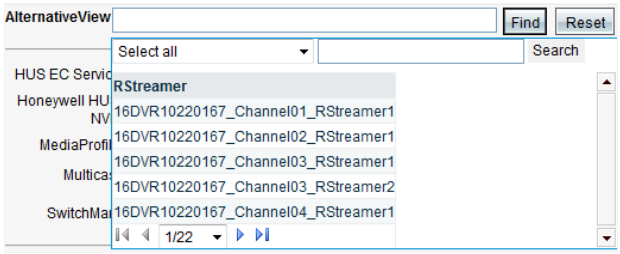
Figure 0-92 Adding HUSS-E2X Stream



Set properties and device parameters for the new device. Besides general parameters, there are following device parameters:

1. **Alternative View:** Click **Find** to select alternative stream when the current running stream cannot work:

Figure 0-93 Alternative View



Click **Reset** to clear selected streams.

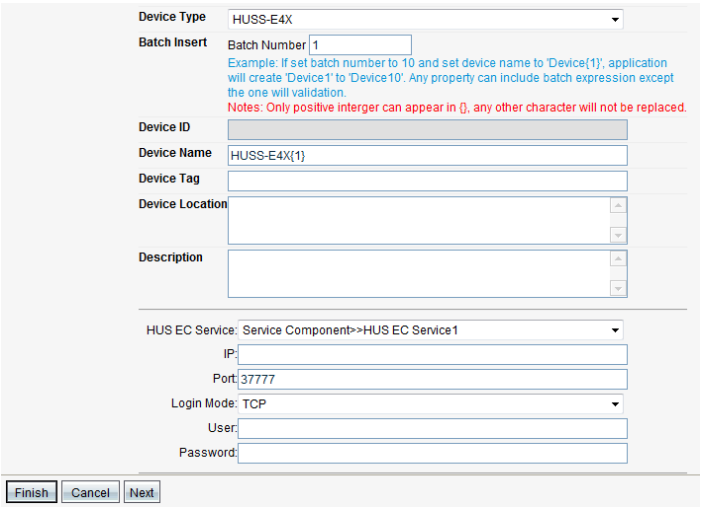
2. **HUS EC Service:** Select Service Component- Event & Control Service.
3. **Stream Type:** Select main or extra according to the users' requirements and network environment.
4. **Show text:** Select this item to show text.
5. **Text:** Enter the text to be showed.
6. **Text Position:** Select the text position.
7. **ShowDate (Time):** Select this item to show date (time).
8. **Date (Time) Format:** Select the date (time) format.
9. **Date (Time) Position:** Select the date (time) position.
10. **Font Size:** Set the font size.
11. **Font Color:** Select the font color.
12. **Switch ID:** Not supported in this edition of HUS application.
13. **Enable NFR:** Select it to enable the network failure recovery.

Click **Finish** to save the settings. When the saving completes, the new device is displayed in the left “Device Tree”.

HUSS-E4X

Click “IP Video Front End Devices” in the “Device Tree”, and click **New**. The following interface is displayed:

Figure 0-94 Adding HUSS-E4X

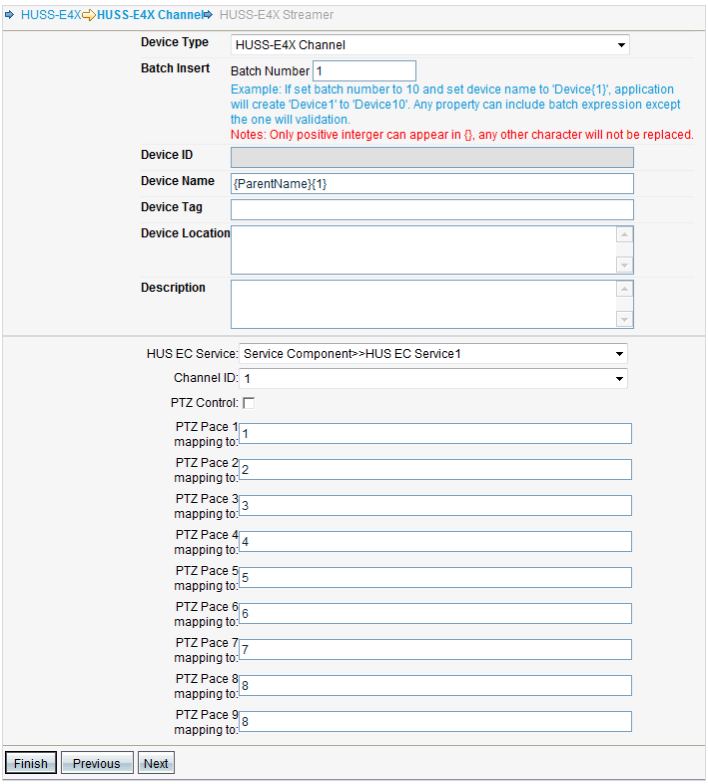


Select “HUSS-E4X” in “Device Type”, set properties and device parameters for the new device. Besides general parameters, there are following device parameters:

1. **HUS EC Service:** Select Service Component- Event & Control Service.
2. **IP:** Enter the IP address of the device.
3. **Port:** “37777” as default.
4. **Login Mode:** Select TCP or Multicast.
5. **User:** Enter the username for login.
6. **Password:** Enter the password for login.

Click **Next**, and the following interface is displayed:

Figure 0-95 Adding HUSS-E4X Channel

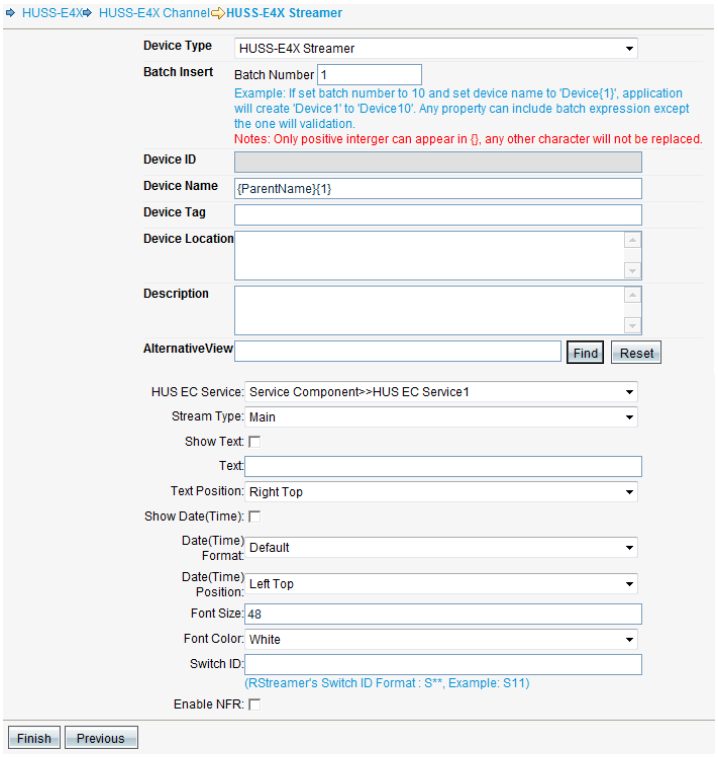


Set properties and device parameters for the new device. Besides general parameters, there are following device parameters:

1. **HUS EC Service:** Select Service Component- Event & Control Service.
2. **Channel ID:** Select channel ID, from 1 to 4.
3. **PTZ Control:** Select it to enable the PTZ control of this channel. Make sure the device is connected to the analog camera.
4. **PTZ Pace X (1-9) mapping to:** PTZ pace X (1-9) can be customized. Each PTZ pace mappings to one front-end PTZ pace.

Click **Next**, and the following interface is displayed:

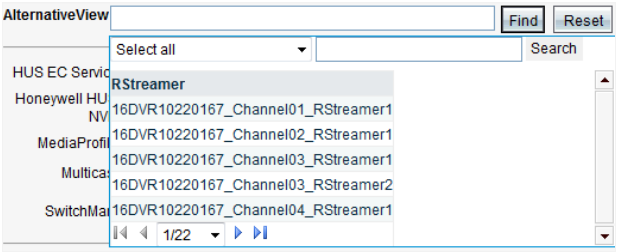
Figure 0-20 Adding HUSS-E4X Stream



Set properties and device parameters for the new device. Besides general parameters, there are following device parameters:

1. **HUS EC Service:** Select Service Component- Event & Control Service.
2. **Alternative View:** Click **Find** to select alternative stream when the current running stream cannot work:

Figure 0-97 Alternative View



Click **Reset** to clear selected streams.

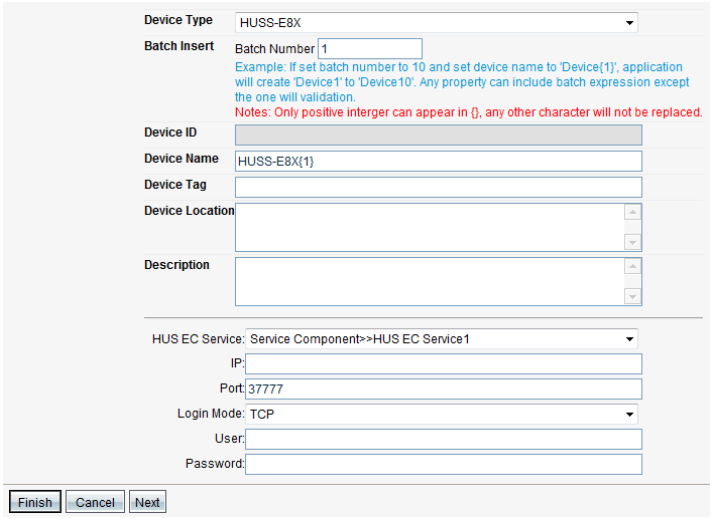
3. **Stream Type:** Select main or extra according to the users' requirements and network environment.
4. **Show text:** Select this item to show text.
5. **Text:** Enter the text to be showed.
6. **Text Position:** Select the text position.
7. **ShowDate (Time):** Select this item to show date (time).
8. **Date (Time) Format:** Select the date (time) format.
9. **Date (Time) Position:** Select the date (time) position.
10. **Font Size:** Set the font size.
11. **Font Color:** Select the font color.
12. **Switch ID:** Not supported in this edition of HUS application.
13. **Enable NFR:** Select it to enable the network failure recovery.

Click **Finish** to save the settings. When the saving completes, the new device is displayed in the left "Device Tree".

HUSS-E8X

Click “IP Video Front End Devices” in the “Device Tree”, and click **New**. The following interface is displayed:

Figure 0-98 Adding HUSS-E8X

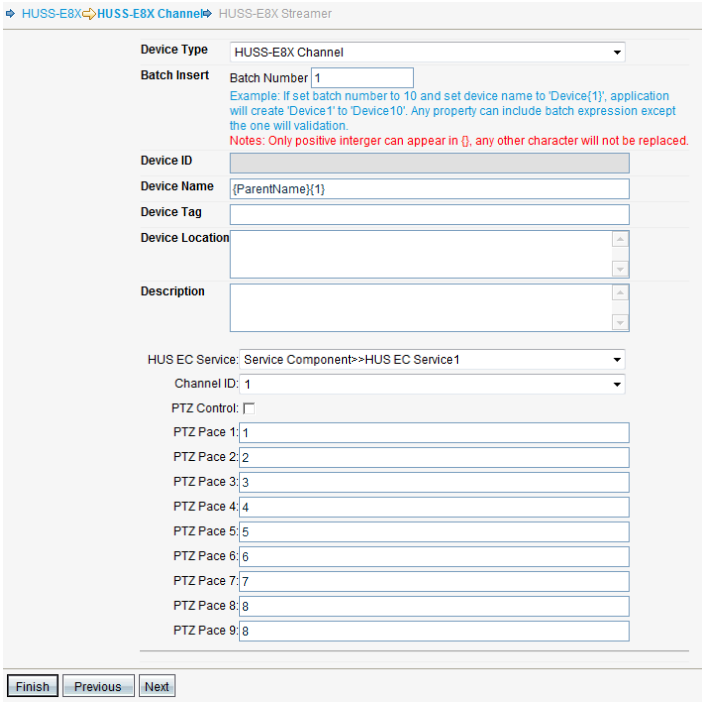


Select “HUSS-E8X” in “Device Type”, set properties and device parameters for the new device. Besides general parameters, there are following device parameters:

1. **HUS EC Service:** Select Service Component- Event & Control Service.
2. **IP:** Enter the IP address of the device.
3. **Port:** “37777” as default.
4. **Login Mode:** Select TCP or Multicast.
5. **User:** Enter the username for login.
6. **Password:** Enter the password for login.

Click **Next**, and the following interface is displayed:

Figure 0-99 Adding HUSS-E8X Channel



Set properties and device parameters for the new device. Besides general parameters, there are following device parameters:

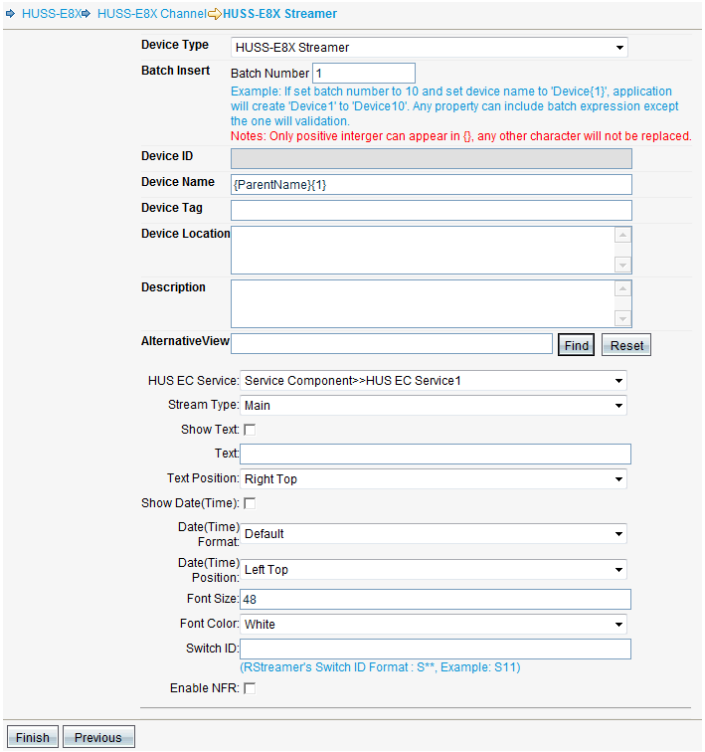
1. **HUS EC Service:** Select Service Component- Event & Control Service.
2. **Channel ID:** Select channel ID, from 1 to 8.

3. **PTZ Control:** Select it to enable the PTZ control of this channel. Make sure the device is connected to the analog camera.

4. **PTZ Pace X (1-9) mapping to:** PTZ pace X (1-9) can be customized. Each PTZ pace mappings to one front-end PTZ pace.

Click **Next**, and the following interface is displayed:

Figure 0-21 Adding HUSS-E8X Stream

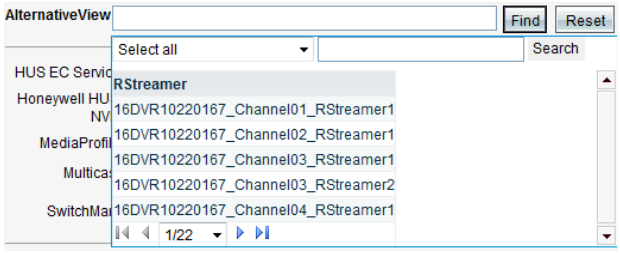


Set properties and device parameters for the new device. Besides general parameters, there are following device parameters:

1. **HUS EC Service:** Select Service Component- Event & Control Service.

2. **Alternative View:** Click **Find** to select alternative stream when the current running stream cannot work:

Figure 0-22 Alternative View



Click **Reset** to clear selected streams.

3. **Stream Type:** Select main or extra according to the users' requirements and network environment.

4. **Show text:** Select this item to show text.

5. **Text:** Enter the text to be showed.

6. **Text Position:** Select the text position.

7. **ShowDate (Time):** Select this item to show date (time).

8. **Date (Time) Format:** Select the date (time) format.

9. **Date (Time) Position:** Select the date (time) position.

10. **Font Size:** Set the font size.
11. **Font Color:** Select the font color.
12. **Switch ID:** Not supported in this edition of HUS application.

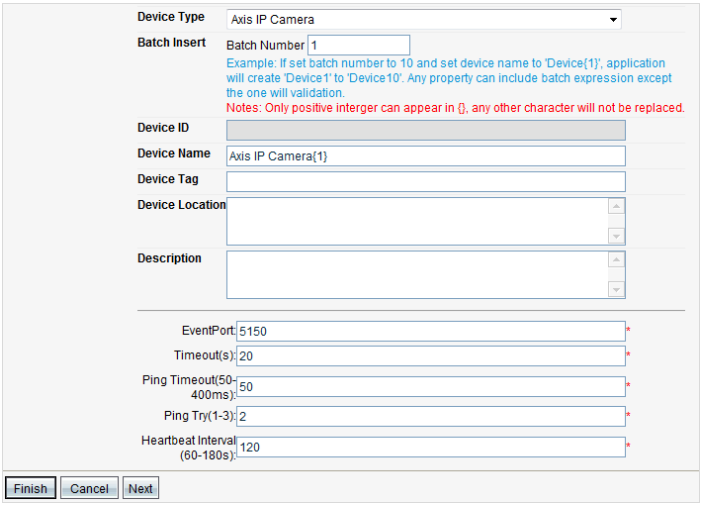
13. **Enable NFR:** Select it to enable the network failure recovery.

Click **Finish** to save the settings. When the saving completes, the new device is displayed in the left “Device Tree”.

Axis IP Camera

Click “IP Video Front End Devices” in the “Device Tree”, and click **New**. The following interface is displayed:

Figure 0-23 Adding Axis IP Camera



Select “Axis IP Camera” in “Device Type”, and set properties and device parameters for the new device. Besides general parameters, there are following device parameters:

1. **Event Port:** The Socket service port in EC for the Adaptor, to receive the event reports from the devices connected with the adaptor. Make sure this port in EC cannot be occupied by other programs or devices, or it cannot receive alarms and ON/OFF line status. The default value is 5150.

2. **Timeout (s):** The interval between two heart beat packets. (5 seconds by default.) Adjust this parameter if the network environment is poor or too many devices are connected. The formula is: Timeout period=number of cameras× (number of alarms per second of a camera×2+1)/20.

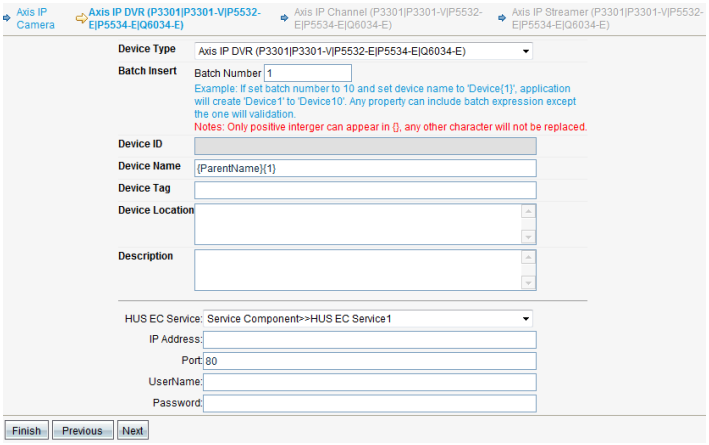
3. **PING Timeout(50-400ms):** Set the interval time of sending and receiving the PING. The device is regarded as disconnected if it is timeout.

4. **PING Try(1-3):** Set the trial times of the PING test.

5. **Heartbeat Interval(20-180s):** Set the interval time between two heartbeats.

Click **Next**, and the following interface is displayed:

Figure 0-24 Adding Axis IP DVR



Set properties and device parameters for the new device. Besides general parameters, there are following device parameters:

1. **HUS EC Service:** Select Service Component- Event & Control Service.

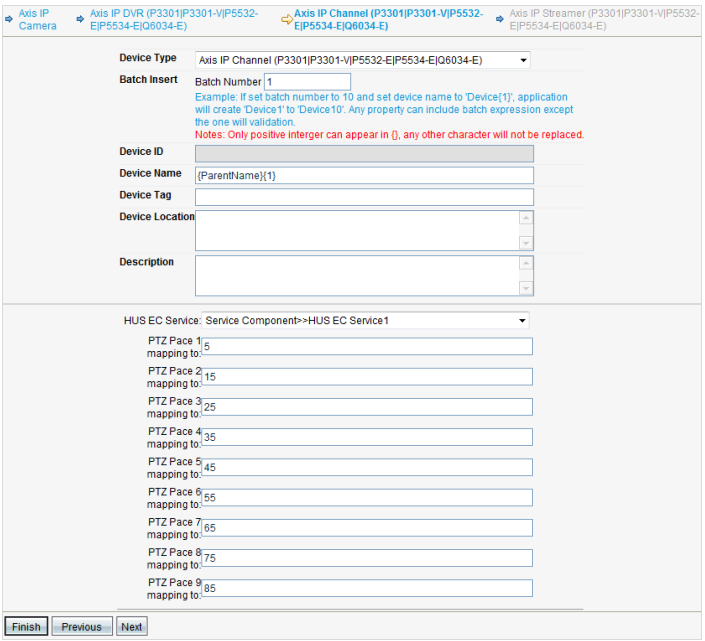
2. **IP Address:** Enter the Enter the IP Address of the device.

3. **Port:** Set the port for communication and configuration.

4. **UserName:** “root” by default.
5. **Password:** “1234” by default.

Click **Next**, and the following interface is displayed:

Figure 0-25 Adding Axis Channel

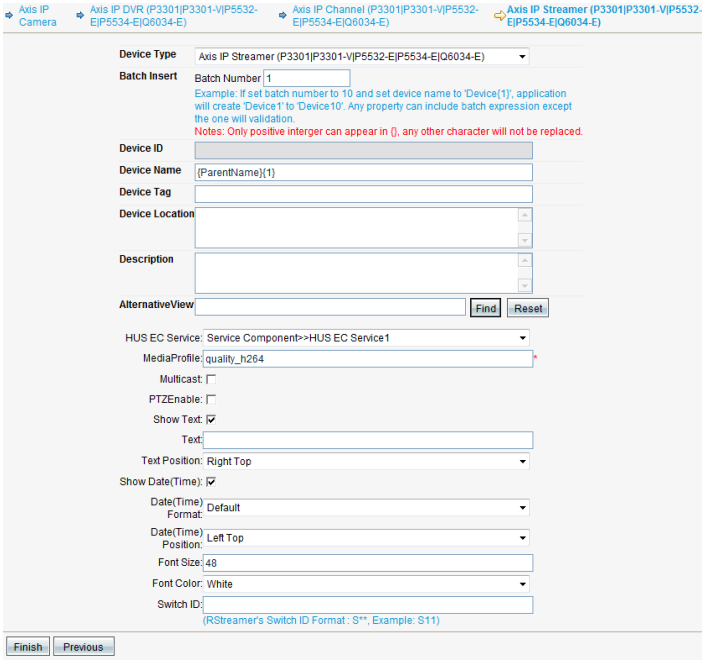


Set properties and device parameters for the new device. Besides general parameters, there are following device parameters:

1. **HUS EC Service:** Select Service Component- Event & Control Service.
2. **PTZ Pace X (1-9) mapping to:** PTZ pace X (1-9) can be customized. Each PTZ pace mappings to one front-end PTZ pace. For Example, PTZ Pace 9 mappings to PTZ85; PTZ Pace 1 mappings to PTZ5. Customized PTZ pace provides more accurate positioning.

Click **Next**, and the following interface is displayed:

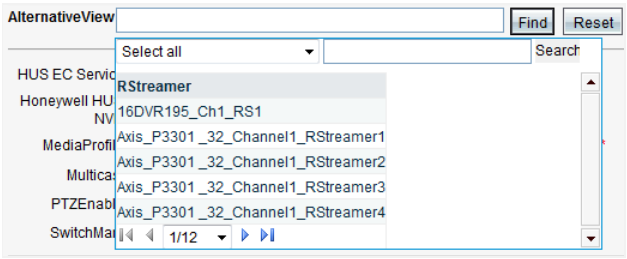
Figure 0-26 Adding Axis Streamer



Set properties and device parameters for the new device. Besides general parameters, there are following device parameters:

1. Alternative View: Click **Find** to select alternative stream when the current running stream cannot work:

Figure 0-27 Alternative View



Click **Reset** to clear selected streams.

2. **HUS EC Service:** Select Service Component- Event & Control Service.

3. **MediaProfile:** Select from quality_h264, mobile_h264, balanced_h264, bandwidth_h264, quality_jpeg, mobile_jpeg or balanced_jpeg. Bandwidth_jpeg by default.

4. **Multicast:** Select it to enable multicast (Multicast address must be set on the device IE in advance.).

5. **PTZ Enable:** Select it to enable the PTZ control of this channel. Make sure the device is connected to the analog camera.

6. **Show text:** Select this item to show text.

7. **Text:** Enter the text to be showed.

8. **Text Position:** Select the text position.

9. **ShowDate (Time):** Select this item to show date (time).

10. **Date (Time) Format:** Select the date (time) format.

11. **Date (Time) Position:** Select the date (time) position.

12. **Font Size:** Set the font size.

13. **Font Color:** Select the font color.

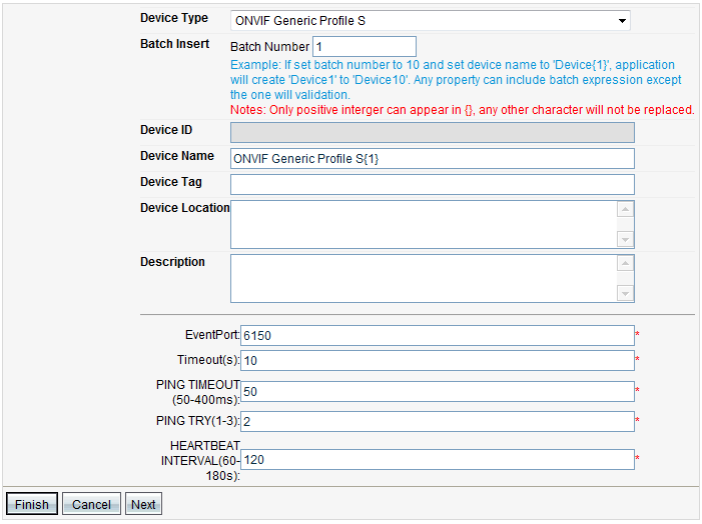
14. **Switch ID:** Not supported in this edition of HUS application.

Click **Finish** to save the settings. When the saving completes, the new device is displayed in the left “Device Tree”.

ONVIF Generic Profile S

Click “IP Video Front End Devices” in the “Device Tree”, and click **New**. The following interface is displayed:

Figure 0-28 Adding ONVIF Generic Profile S



Select “ONVIF Generic Profile S” in “Device Type”, set properties and device parameters for the new device. Besides general parameters, there are following device parameters:

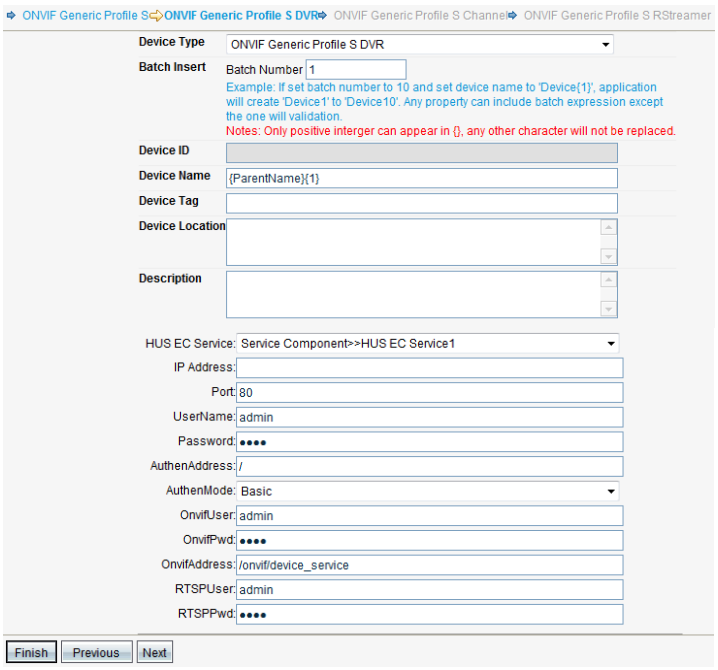
1. **EventPort:** The Socket service port in EC for the Adaptor, to receive the event reports from the devices connected with the adaptor. Make sure this port in EC cannot be occupied by other programs or devices, or it cannot receive alarms and ON/OFF line status. The default value is 6150.

2. **Timeout (s):** The interval between two heart beat packets. (10 seconds by default.) Adjust this parameter if the network environment is poor or too many devices are connected. The formula is: Timeout period=number of cameras× (number of alarms per second of a camera×2+1)/20.

3. **PING Timeout(50-400ms):** Set the interval time of sending and receiving the PING. The device is regarded as disconnected if it is timeout.
4. **PING Try(1-3):** Set the trial times of the PING test.
5. **Heartbeat Interval(60-180s):** Set the interval time between two heartbeats.

Click **Next**, and the following interface is displayed:

Figure 0-29 Adding ONVIF Generic Profile S DVR

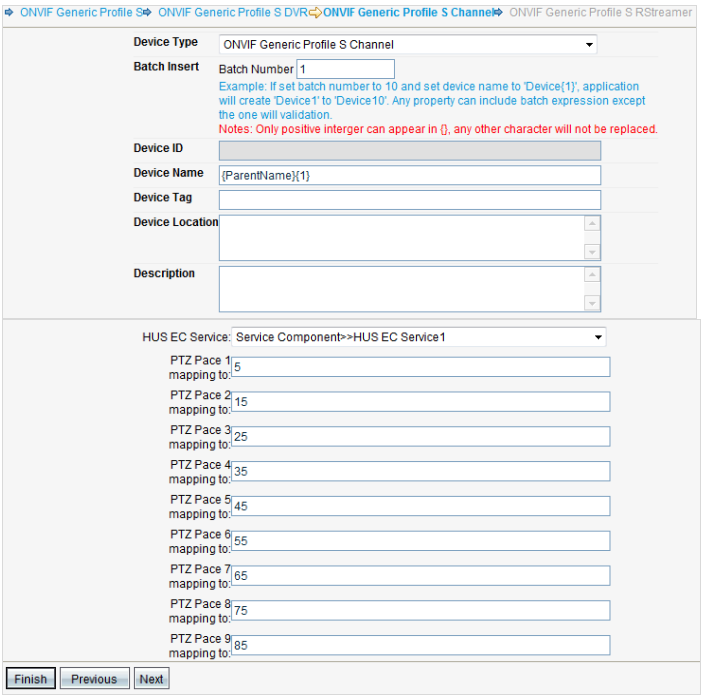


Set properties and device parameters for the new device. Besides general parameters, there are following device parameters:

1. **HUS EC Service:** Select Service Component- Event & Control Service.
2. **IP Address:** Enter the Enter the IP Address of the device.
3. **Port:** Set the port for communication and configuration.
4. **UserName:** “admin” by default.
5. **Password:** “1234” by default.
6. **AuthenAddress:** HTTP Address to log on. Ask the vendor for details.
7. **AuthenMode:** HTTP authentication mode. Ask the vendor for details.
8. **ONVIFUser:** ONVIF user name. Ask the vendor for details.
9. **ONVIFPwd:** ONVIF password. Ask the vendor for details.
10. **ONVIF Address:** ONVIF address. Ask the vendor for details.
11. **RTSP User:** RTSP user name. Ask the vendor for details.
12. **RTSP Pwd:** RTSP password. Ask the vendor for details.

Click **Next**, and the following interface is displayed:

Figure 0-30 Adding ONVIF Generic Profile S Channel



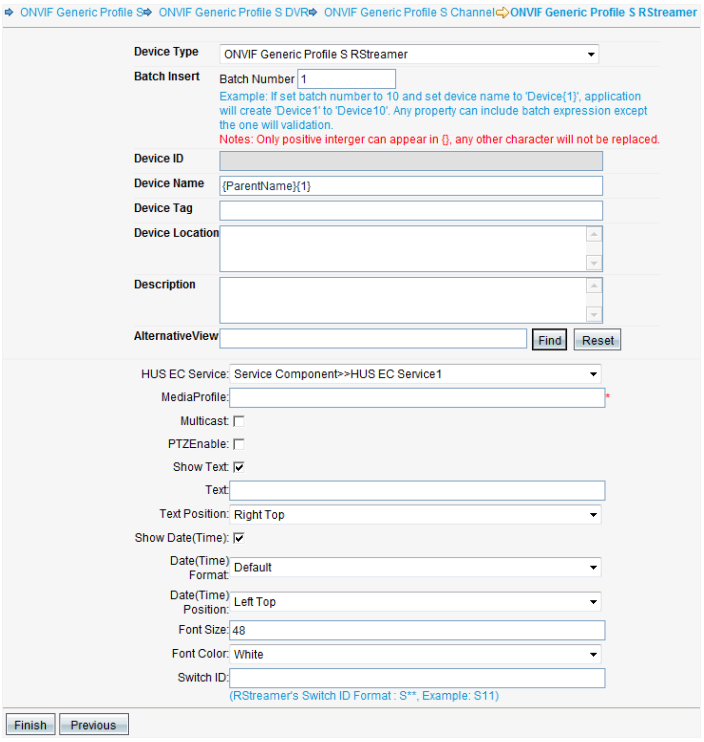
Set properties and device parameters for the new device. Besides general parameters, there are following device parameters:

1. **HUS EC Service:** Select Service Component- Event & Control Service.

2. **PTZ Pace X (1-9) mapping to:** PTZ pace X (1-9) can be customized. Each PTZ pace mappings to one front-end PTZ pace. For Example, PTZ Pace 9 mappings to PTZ85; PTZ Pace 1 mappings to PTZ5. Customized PTZ pace provides more accurate positioning.

Click **Next**, and the following interface is displayed:

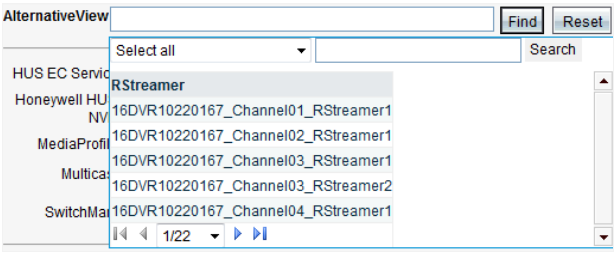
Figure 0-58 Adding ONVIF Generic Profile S Streamer



Set properties and device parameters for the new device. Besides general parameters, there are following device parameters:

1. Alternative View: Click **Find** to select alternative stream when the current running stream cannot work:

Figure 0-59 Alternative View



Click **Reset** to clear selected streams.

2. **HUS EC Service:** Select Service Component- Event & Control Service.

3. **MediaProfile:** Select from quality_h264, mobile_h264, balanced_h264, bandwidth_h264, quality_jpeg, mobile_jpeg or balanced_jpeg. bandwidth_jpeg by default.

4. **Multicast:** Select it to enable multicast (Multicast address must be set on the device IE in advance.).

5. **PTZ Enable:** Select it to enable the PTZ control of this channel. Make sure the device is connected to the analog camera.

6. **Show Text:** Select this item to show text.

7. **Text:** Enter the text to be showed.

8. **Text Position:** Select the text position.

9. **ShowDate (Time):** Select this item to show date (time).

10. **Date (Time) Format:** Select the date (time) format.

11. **Date (Time) Position:** Select the date (time) position.

12. **Font Size:** Set the font size.

13. **Font Color:** Select the font color.

14. **Switch ID:** Not supported in this edition of HUS application.

Click **Finish** to save the settings. When the saving completes, the new device is displayed in the left “Device Tree”.

Modifying IP Address

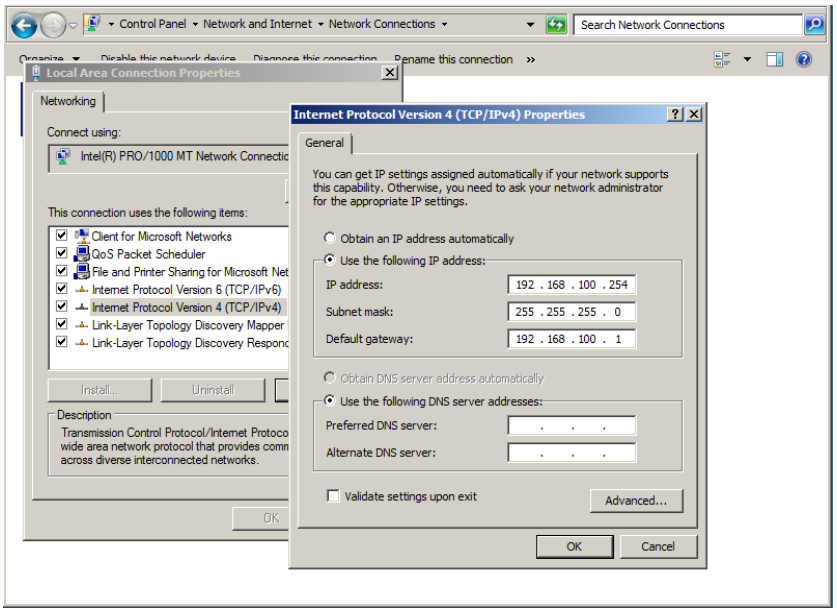
Modifying Server IP Address

In case the user needs to change the IP address of the machine, the following steps in HUS-SWP-32S application.

1. Change Default IP Address

Click "**Network"** on the desktop, select "**Properties**"，user will open the Local area connection，select "**Properties**", and changes the IP address from 192.168.1.100 to 192.168.100.254, as shown below.

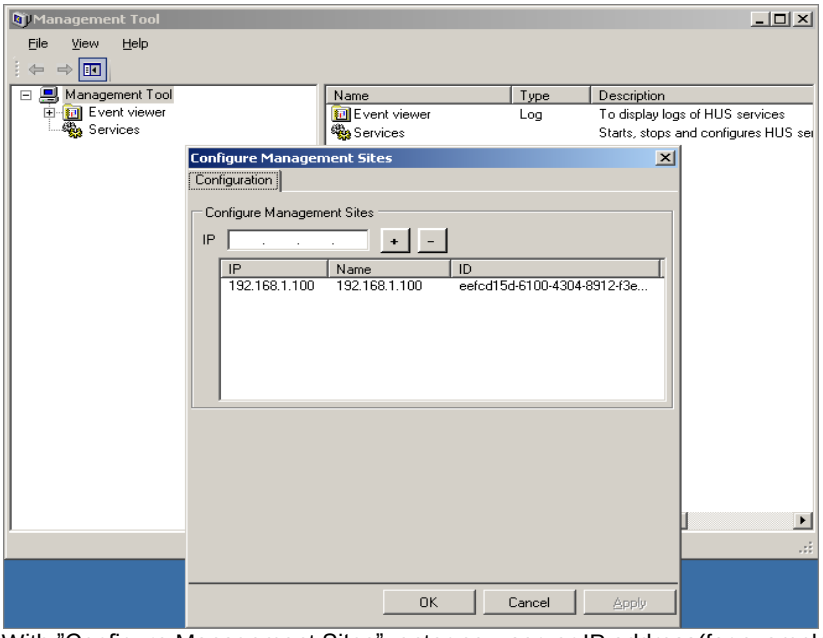
Figure13-149 Modifying IP Address



2. Reconfigure Management Tools

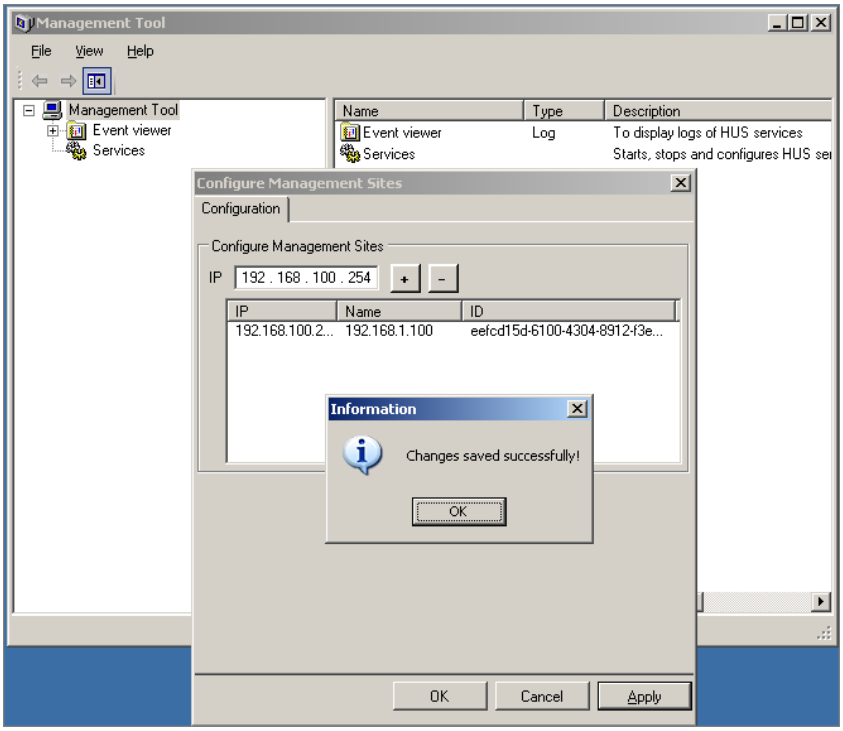
Click "**Management Tool**" on the desktop，and select "**File**" and "**Configure Management Sites**", user will notice the default IP address 192.168.1.100.After select it ,and click "-"to delete the previous Management Server.

Figure 13-150 Management Tool -Property



With ”Configure Management Sites”, enter new server IP address(for example 192.168.100.254),click button”+”,add new management server, and save it.

Figure 13-151 Management Tool-Reconfigure



3. Reconfigure Services

User must reconfigure all service components as below.

a. HUS EC Service

Expand the tree items **Management Tool→Services**, and double-click “HUS EC Service” under the “Services” group. Click the “Configuration” tab in the open “HUS EC Service Properties” dialog box.

Select the new Management Server that user want to synchronize, and select the corresponding EC Service from names in “Management Server List”, so as to connect the EC Service equipment with the central server deployed by Management Server.

Figure13-152 HUS EC Service-configuration

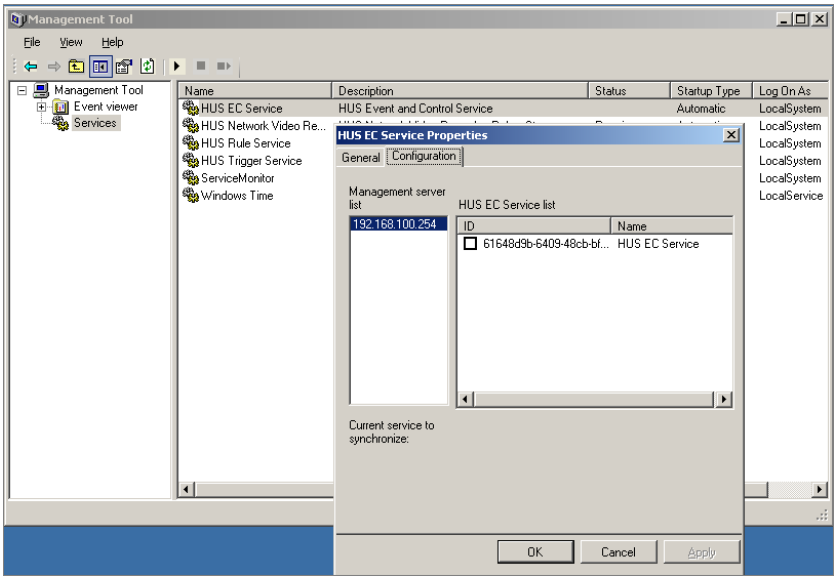
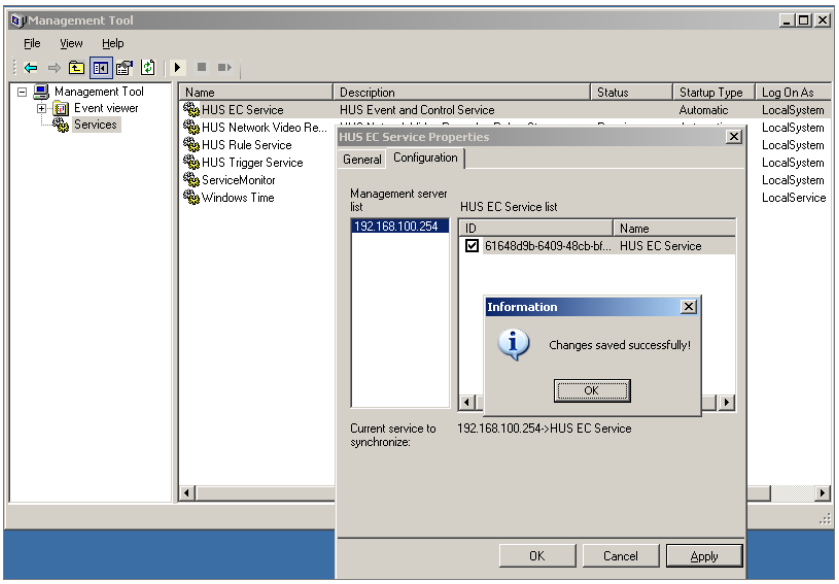


Figure 13-153 HUS EC Service -saved

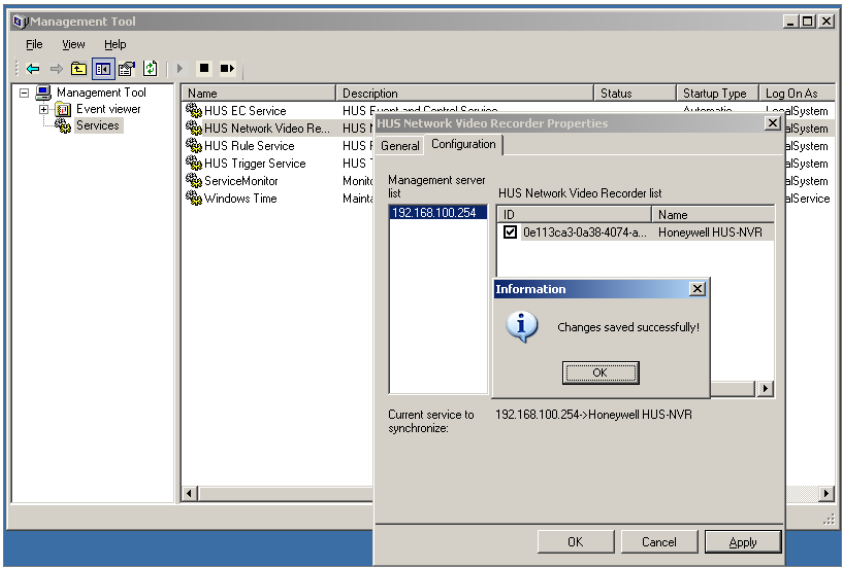


b. HUS Network Video Recorder

Expand the tree items **Management Tool→Services,** and double-click “HUS Network Video Recorder Service”. Click the “Configuration” tab in the open “HUS Network Video Recorder Service Properties” dialog box.

Select the Management Server that user want to synchronize, and select the corresponding HUS Network Video Recorder Service names in “Management Server List”; this connects to HUS Network Video Recorder Service to the center server devices deployed by Management Server.

Figure13-154 HUS Network Video Recorder Property-configuration

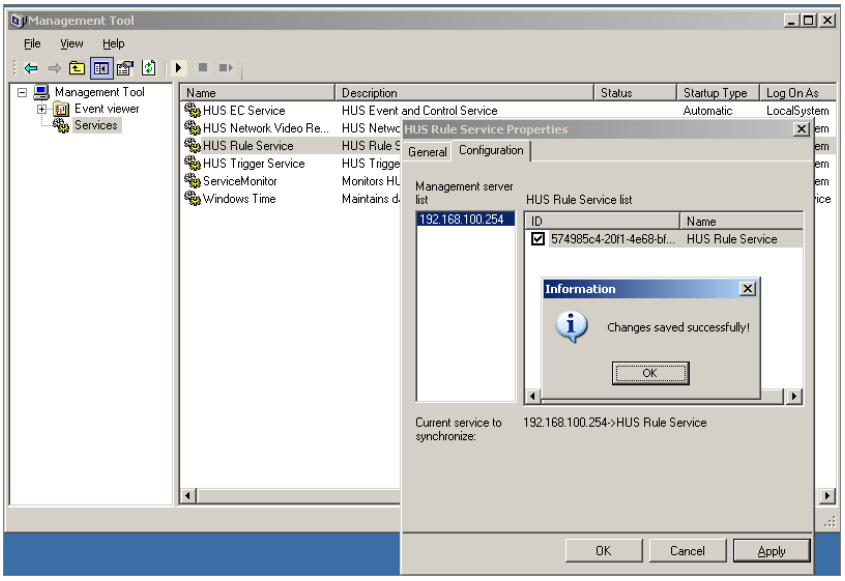


c. HUS Rule Service

Expand the tree items **Management Tool→Services,** and double-click “HUS Rule Service”. Click the “Configuration” tab in the open “HUS Rule Service Properties” dialog box.

Select the Management Server that user want to synchronize, and select the corresponding HUS Rule Service names in “Management Server List”; this connects to HUS Rule Service to the center server devices deployed by Management Server.

Figure 13-155 HUS Rule Service Property-Configuration

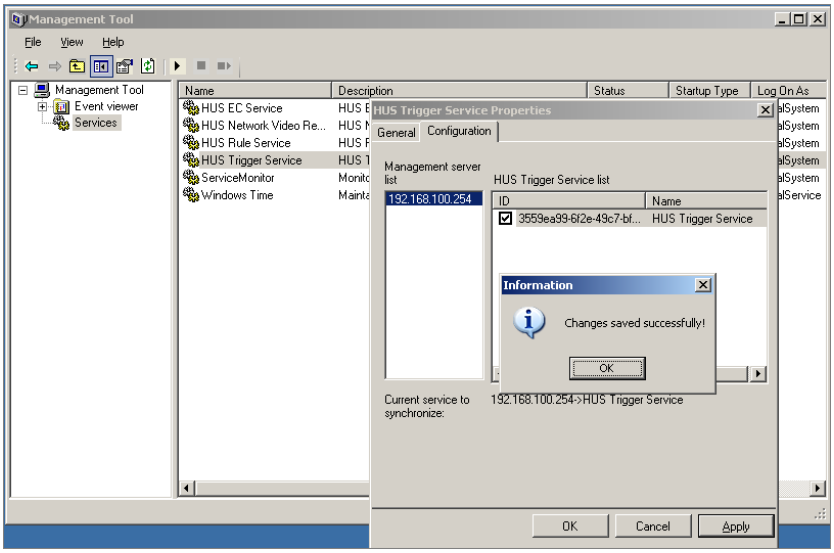


d. HUS Trigger Service

Expand the tree items **Management Tool→Services,** and double-click “HUS Trigger Service”. Click the “Configuration” tab in the open “HUS Trigger Service Properties” dialog box.

Select the Management Server that user want to synchronize, and select the corresponding HUS Trigger Service names in “Management Server List”; this connects to HUS Trigger Service to the center server devices deployed by Management Server.

Figure13-156 HUS Trigger Service -configuration

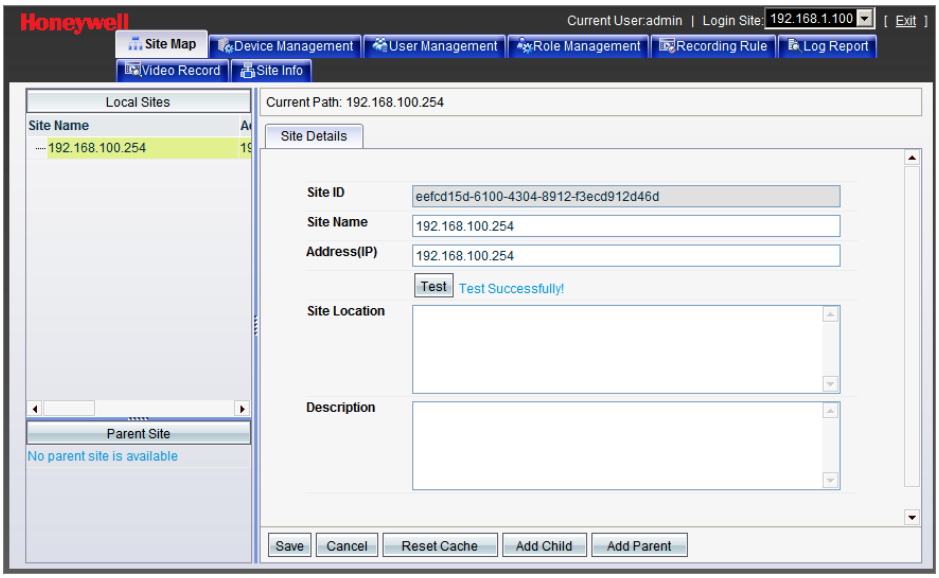


3. Modifying IP Address Setting in Management Server

Enter the site address of the Management Server in Internet Explorer with http://192.168.100.254/HUSsite , and go to the login page, Enter the login name and password (the initial name and password are both “admin”), and click **Login** to access Management Server.

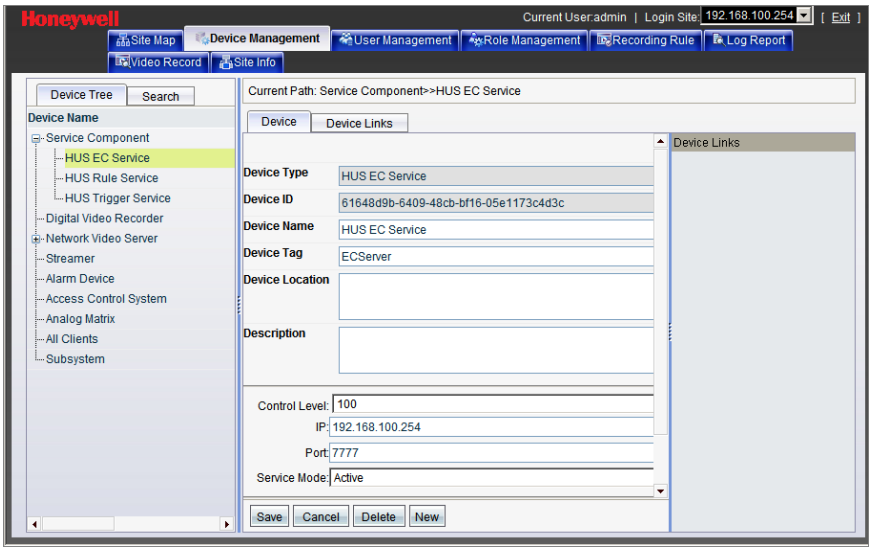
User can modify the previous IP address from 192.168.1.100 to the new IP address 192.168.100.254.

Figure 13-157 Modifying IP Address from Web



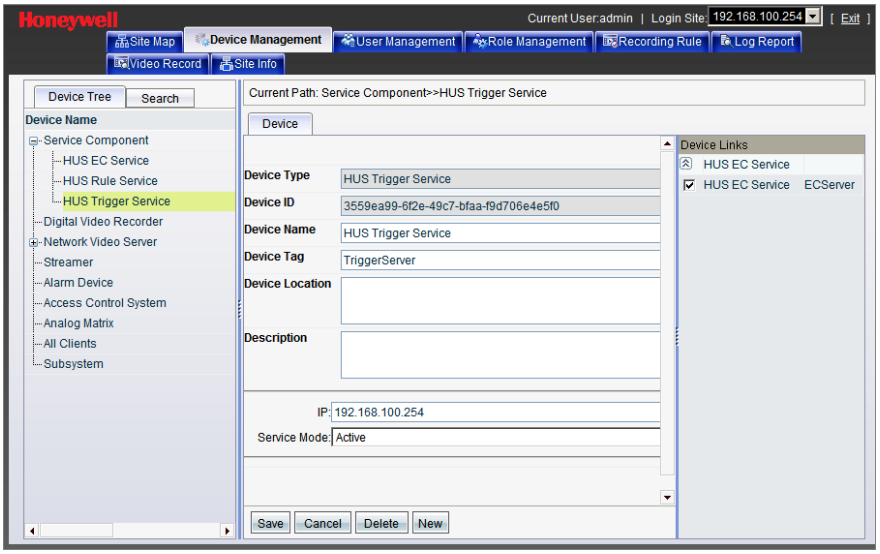
Select “Service Component” from menu “Device Management” and modify “HUS EC Service” IP address as new server IP address 192.168.100.254.

Figure13-158 EC Service IP Address Modifying



Modify HUS Rule Service IP address from 192.168.1.100 to 192.168.100.254.

Figure 13-159 HUS Trigger Service IP Modifying



From “Device Management” menu, select “Network Video Server”, and modify the “Honeywell HUS-NVR” IP address to 192.168.100.254.

Figure13-160 HUS NVR Configuration-Modifying